



STIC Search Report

Biotech-Chem Library

STIC Database Tracking Number: 161266

TO: Sumesh Kaushal
Location: REM-2B85&2C70
Art Unit: 1633
Tuesday, August 09, 2005

Case Serial Number: 10/787382

From: Edward Hart
Location: Biotech-Chem Library
REM-1A55
Phone: 571-272-2512

edward.hart@uspto.gov

Search Notes

Examiner Kaushal,

Here are the results of the search you requested.

Please feel free to contact me if you have any questions.

Edward Hart



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QY 301 GTCTTTAATAAAGAACACATAGAGCCGCAAAAAAGGTGTGACAGAGAAAGATGAG 360
DB 301 GTCTTTAATAAAGAACACATAGAGCCGCAAAAAAGGTGTGACAGAGAAAGATGAG 360
QY 361 AGTGACAAAGTTCCTAGACTACCTGCAAGTATTTCTTGATATTAACCCGAGTGAC 420
DB 361 AGTGACAAAGTTCCTAGACTACCTGCAAGTATTTCTTGATATTAACCCGAGTGAC 420
QY 421 ACCGGAAGTTGAGAACCAACCGCTTATTTAGTGAAGATTTTGGAGAAATGGTTT 480
DB 421 ACCGGAAGTTGAGAACCAACCGCTTATTTAGTGAAGATTTTGGAGAAATGGTTT 480
QY 481 TTGGCGATGAGATGAGGCGCAACCAAGTAGGAGCTTAATGGCCAGTATACTAAGC 540
DB 481 TTGGCGATGAGATGAGGCGCAACCAAGTAGGAGCTTAATGGCCAGTATACTAAGC 540
QY 541 TTGAGAGCAAAAGTAATATTTTCAAGGATCTTACTATTATCACTTCAACAGATGAAA 600
DB 541 TTGAGAGCAAAAGTAATATTTTCAAGGATCTTACTATTATCACTTCAACAGATGAAA 600
QY 601 TATATTTGAG 610
DB 601 TATATTTGAG 610
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RESULT 2
US-09-322-409-82/c
; Sequence 82, Application US/09322409
; Patent No. 6471957
; GENERAL INFORMATION:
; APPLICANT: Sim, Gek-kee
; APPLICANT: Yang, Shumin
; APPLICANT: Drelitz, Matthew J.
; APPLICANT: Wonderling, Ramani S.
; TITLE OF INVENTION: CANINE AND FELINE IMMUNOREGULATORY PROTEINS, NUCLEIC
; FILE REFERENCE: IM-2-C1
; CURRENT APPLICATION NUMBER: US/09/322,409
; CURRENT FILING DATE: 1999-05-28
; EARLIER APPLICATION NUMBER: 60/087,306
; EARLIER FILING DATE: 1998-05-29
; NUMBER OF SEQ ID NOS: 154
; SOFTWARE: Patent Ver. 2.0
; SEQ ID NO 82
; LENGTH: 610
; TYPE: DNA
; ORGANISM: Canis familiaris
US-09-322-409-82
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Query Match 100.0%; Score 610; DB 4; Length 610;
Best Local Similarity 100.0%; Pred. No. 9,9e-301;
Matches 610; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 CAAGGCAAAACACTGAACTTTTCAGAGCTATAGAAATGTTTGAAATTTGAGTTTGTAC 60
DB 610 CAAGGCAAAACACTGAACTTTTCAGAGCTATAGAAATGTTTGAAATTTGAGTTTGTAC 60
QY 61 TCTTGGGGCTGCTATGTTTCTGCTTGTGAGAAATCCCAATGAAATAGACTGTGGC 120
DB 61 TCTTGGGGCTGCTATGTTTCTGCTTGTGAGAAATCCCAATGAAATAGACTGTGGC 120
QY 550 TCTTGGGGCTGCTATGTTTCTGCTTGTGAGAAATCCCAATGAAATAGACTGTGGC 491
DB 550 TCTTGGGGCTGCTATGTTTCTGCTTGTGAGAAATCCCAATGAAATAGACTGTGGC 491
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DB 121 AGAGACTTGAACACTGCTCTCCACTCATGAACTTGGCTGATAGGCGATGGAACTGAT 180
QY 490 AGAGACTTGAACACTGCTCTCCACTCATGAACTTGGCTGATAGGCGATGGAACTGAT 431
DB 490 AGAGACTTGAACACTGCTCTCCACTCATGAACTTGGCTGATAGGCGATGGAACTGAT 431
QY 181 GATTCTCTCTCTGAAAAATTAACCACTGTGCTTAAAGAGTTTTCAGGGTAT 240
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QY 370 AGACACATTGAAGAACCAACTGCGCCACGGGAGGCTGTGGATAAATTCACAAACTT 311
DB 370 AGACACATTGAAGAACCAACTGCGCCACGGGAGGCTGTGGATAAATTCACAAACTT 311
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DB 310 GTCTTTAATAAAGAACACATAGAGCCGCAAAAAAGGTGTGACAGAGAAAGATGAG 251
QY 361 AGTGACAAAGTTCCTAGACTACCTGCAAGTATTTCTTGATATTAACCCGAGTGAC 420
DB 250 AGTGACAAAGTTCCTAGACTACCTGCAAGTATTTCTTGATATTAACCCGAGTGAC 191
QY 421 ACCGGAAGTTGAGAACCAACCGCTTATTTAGTGAAGATTTTGGAGAAATGGTTT 480
DB 190 ACCGGAAGTTGAGAACCAACCGCTTATTTAGTGAAGATTTTGGAGAAATGGTTT 111
QY 481 TTGGCGATGAGATGAGGCGCAACCAAGTAGGAGCTTAATGGCCAGTATACTAAGC 540
DB 130 TTGGCGATGAGATGAGGCGCAACCAAGTAGGAGCTTAATGGCCAGTATACTAAGC 71
QY 541 TTGAGAGCAAAAGTAATATTTTCAAGGATCTTACTATTATCACTTCAACAGATGAAA 600
DB 70 TTGAGAGCAAAAGTAATATTTTCAAGGATCTTACTATTATCACTTCAACAGATGAAA 11
QY 601 TATATTTGAG 610
DB 10 TATATTTGAG 1
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RESULT 3
US-09-451-527-80
; Sequence 80, Application US/09451527
; Patent No. 6482403
; GENERAL INFORMATION:
; APPLICANT: Sim, Gek-kee
; APPLICANT: Yang, Shumin
; APPLICANT: Drelitz, Matthew J.
; APPLICANT: Wonderling, Ramani S.
; TITLE OF INVENTION: CANINE AND FELINE IMMUNOREGULATORY PROTEINS, NUCLEIC
; FILE REFERENCE: IM-2-C2
; CURRENT APPLICATION NUMBER: US/09/451,527
; CURRENT FILING DATE: 1999-12-01
; EARLIER APPLICATION NUMBER: 09/322,409
; EARLIER FILING DATE: 1999-05-28
; EARLIER APPLICATION NUMBER: 60/087,306
; EARLIER FILING DATE: 1998-05-29
; NUMBER OF SEQ ID NOS: 174
; SOFTWARE: Patent Ver. 2.0
; SEQ ID NO 80
; LENGTH: 610
; TYPE: DNA
; ORGANISM: Canis familiaris
; FEATURE:
; NAME/KEY: CDS
; LOCATION: (29)..(430)
US-09-451-527-80
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Query Match 100.0%; Score 610; DB 4; Length 610;
Best Local Similarity 100.0%; Pred. No. 9,9e-301;
Matches 610; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 CAAGGCAAAACACTGAACTTTTCAGAGCTATAGAAATGTTTGAAATTTGAGTTTGTAC 60
DB 1 CAAGGCAAAACACTGAACTTTTCAGAGCTATAGAAATGTTTGAAATTTGAGTTTGTAC 60
QY 61 TCTTGGGGCTGCTATGTTTCTGCTTGTGAGAAATCCCAATGAAATAGACTGTGGC 120
DB 61 TCTTGGGGCTGCTATGTTTCTGCTTGTGAGAAATCCCAATGAAATAGACTGTGGC 120
QY 550 TCTTGGGGCTGCTATGTTTCTGCTTGTGAGAAATCCCAATGAAATAGACTGTGGC 491
DB 550 TCTTGGGGCTGCTATGTTTCTGCTTGTGAGAAATCCCAATGAAATAGACTGTGGC 491
QY 121 AGAGACTTGAACACTGCTCTCCACTCATGAACTTGGCTGATAGGCGATGGAACTGAT 180
DB 121 AGAGACTTGAACACTGCTCTCCACTCATGAACTTGGCTGATAGGCGATGGAACTGAT 180
QY 490 AGAGACTTGAACACTGCTCTCCACTCATGAACTTGGCTGATAGGCGATGGAACTGAT 431
DB 490 AGAGACTTGAACACTGCTCTCCACTCATGAACTTGGCTGATAGGCGATGGAACTGAT 431
QY 181 GATTCTCTCTCTGAAAAATTAACCACTGTGCTTAAAGAGTTTTCAGGGTAT 240
DB 181 GATTCTCTCTCTGAAAAATTAACCACTGTGCTTAAAGAGTTTTCAGGGTAT 240
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Db	181	GATTCCTACTCCTGAAAATATAAAATATCCAACTGTGSCATTAAAGAAAGTTTTCAGGGTAT	240
Qy	241	AGACACATTTGAAGAAACCAAACTGCCCACGGGAGGCTGTGATAAACTATATCCAAACTT	300
Db	241	AGACACATTTGAAGAACCAAACTGCCCACGGGAGGCTGTGATAAACTATATCCAAACTT	300
Qy	301	GTCCTTAAATAAAAGAACACATGTAGGGCCAAAAAAAAGGTGTGCAGAGAAAAGATGAG	360
Db	301	GTCCTTAAATAAAAGAACACATGTAGGGCCAAAAAAAAGGTGTGCAGAGAAAAGATGAG	360
Qy	361	AGTGACAAAAGTCTTAGACTAGACTCCTGCAGTATTTCTTGGTATATAAACCGAGTGGAC	420
Db	361	AGTGACAAAAGTCTTAGACTAGACTCCTGCAGTATTTCTTGGTATATAAACCGAGTGGAC	420
Qy	421	ACCGGAAAAGTTGAGAACCAAAACCGGCTTATTTGTATGTGAAAGATTTTGGAGAACAAATGGTTT	480
Db	421	ACCGGAAAAGTTGAGAACCAAAACCGGCTTATTTGTATGTGAAAGATTTTGGAGAACAAATGGTTT	480
Qy	481	TTTGGCGCATGAGAAATGAGGGCCAAACCAACATGTGGAAGCTTAATATGCCATATTAACTAAC	540
Db	481	TTTGGCGCATGAGAAATGAGGGCCAAACCAACATGTGGAAGCTTAATATGCCATATTAACTAAC	540
Qy	541	TTTCAGAGCAAAAGTAAATATTTTCAGGACCTACTACTTATTCACCTTCCACAGATGAAA	600
Db	541	TTTCAGAGCAAAAGTAAATATTTTCAGGACCTACTACTTATTCACCTTCCACAGATGAAA	600
Qy	601	TATATTTGAG 610	
Db	601	TATATTTGAG 610	

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RESULT 4
US-09-451-527-82/C
; Sequence 82, Application US/09451527
; Patent No. 6482403
; GENERAL INFORMATION:
; APPLICANT: Sim, Gek-Kee
; APPLICANT: Yang, Shumin
; APPLICANT: Dreitz, Matthew J.
; APPLICANT: Wonderling, Ramani S.
; TITLE OF INVENTION: CANINE AND FELINE IMMUNOREGULATORY PROTEINS, NUCLEIC
; TITLE OF INVENTION: ACID MOLECULES, AND USES THEREOF
; FILE REFERENCE: IM-2-C2
; CURRENT APPLICATION NUMBER: US/09/451,527
; CURRENT FILING DATE: 1999-12-01
; EARLIER APPLICATION NUMBER: 09/322,409
; EARLIER FILING DATE: 1999-05-28
; EARLIER APPLICATION NUMBER: 60/087,306
; EARLIER FILING DATE: 1998-05-29
; NUMBER OF SEQ ID NOS: 174
; SOFTWARE: PatentIn Ver. 2.0
; SEQ ID NO 82
; LENGTH: 610
; TYPE: DNA
; ORGANISM: Canis familiaris
US-09-451-527-82

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Query Match	100.0%;	Score 610;	DB 4;	length 610;
Best Local Similarity	100.0%;	Pred. No. 9.9e-301;		
Matches 610;	Conservative 0;	Mismatches 0;	Indels 0;	Gaps 0;

OY	1	CAAGCAAA	CACTGAA	CATTTG	CAGACCT	ATGAGAA	TGCTT	TGCAAT	TGAGTT	TGCT	TGAC	60								
Db	610	CAAGCAAA	CAC	TGAA	CA	TTTC	CAGAC	CTAT	GTAGAA	TGCTT	CAAT	TTTGAGTTGCT	TGAC	551						
OY	61	TTTTGGGG	TGCTT	ATGTTT	TTCG	CTTT	TGCT	GTAG	AAAA	TCC	CAT	GAAT	TGACT	TGGT	TGGC	120				
Db	550	TTTTGGGG	TGCTT	ATGTTT	CTTC	TTCG	CTTT	TGCT	GTAG	AAAA	TCC	CAT	GAAT	TGACT	TGGT	TGGC	491			
OY	121	AGAGAC	CTTGA	CAC	TGCT	TCC	CA	CTAT	TGA	AA	TTT	GG	CTG	AT	TGG	GCA	TGGGA	AACT	GAT	180
Db	490	AGAGAC	CTTGA	CAC	TGCT	TCC	CA	CTAT	TGA	AA	TTT	GG	CTG	AT	TGG	GCA	TGGGA	AACT	GAT	431

QY	181	GATTCCTCTCCTGTAATAATAAATCACAACCTGTGCATTTAAGAAGTTTTCAGGGTAT	240
Db	430	GATTCCTCTCCTGTAATAATAAATCACAACCTGTGCATTTAAGAAGTTTTCAGGGTAT	371
QY	241	AGACACATTTGAAGAACCAAACTGCGCCACGGGGAGGCTGTGATAAATAATTCAAAACCTT	300
Db	370	AGACACATTTGAAGAACCAAACTGCGCCACGGGGAGGCTGTGATAAATAATTCAAAACCTT	311
QY	301	GTCTTTAATAAAGAACAATGAGCGGCCAAAATAAAGCTGTGCAGAGGAAGAATGAGAG	360
Db	310	GTCTTTAATAAAGAACAACATGAGCGGCCAAAATAAAGCTGTGCAGAGGAAGAATGAGAG	251
QY	361	AGTGACAAGTCTCTAGACTACCTTSCAAGTATTTCTTGTTGTAATAAACCACGAGTGAC	420
Db	250	AGTGACAAGTCTCTAGACTACCTTSCAAGTATTTCTTGTTGTAATAAACCACGAGTGAC	191
QY	421	ACCGAANAAGTTGAGAACCAACCGGCTTATTTGTATGAGAAAGATTTTGGAGAGAAATGCGTTT	480
Db	190	ACCGAANAAGTTGAGAACCAACCGGCTTATTTGTATGAGAAAGATTTTGGAGAAATGCGTTT	131
QY	481	TTTGGCGATGGAAGTAAGAGGGCCAAACCAACAGTAGGAGACTTAATGCGCAGTATATCTAACG	540
Db	130	TTTGGCGATGGAAGTAAGAGGGCCAAACCAACAGTAGGAGACTTAATGCGCAGTATATCTAACG	71
QY	541	TTTCAGAGCAAAAGTAATATTTTCAGGCAATCTACTACTTATCACTTCAACAGATGAAA	600
Db	70	TTTCAGAGCAAAAGTAATATTTTCAGGCAATCTACTACTTATCACTTCAACAGATGAAA	11
QY	601	TATATTGAG 610	
Db	10	TATATTGAG 1	

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RESULT 5
US-09-322-409-83
; Sequence 83. Application US/09322409
; Patent No. 6471957
; GENERAL INFORMATION:
; APPLICANT: Sim, Gek-Kee
; APPLICANT: Yang, Shumin
; APPLICANT: Drelitz, Matthew J.
; APPLICANT: Mondelring, Ramani S.
; TITLE OF INVENTION: CANINE AND FELINE IMMUNOREGATORY PROTEINS, NUCLEIC
; TITLE OF INVENTION: ACID MOLECULES, AND USES THEREOF
; FILE REFERENCE: IM-2-C1
; CURRENT APPLICATION NUMBER: US/09/322,409
; CURRENT FILING DATE: 1999-05-28
; EARLIER APPLICATION NUMBER: 60/087,306
; EARLIER FILING DATE: 1998-05-29
; NUMBER OF SEQ ID NOS: 154
; SOFTWARE: PatentIn Ver. 2.0
; SEQ ID NO 83
; LENGTH: 402
; TYPE: DNA
; ORGANISM: Canis familiaris
US-09-322-409-83

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Query Match	65.9%	Score 402;	DB 4;	Length 402;
Best Local Similarity	100.0%;	Pred. No. 9.6e-195;		
Matches 402; Conservative	0;	Mismatches	0;	Indels 0; Gaps 0;

QY 29 ATGAGAAAGCTTCTGAATTTGAGTTTGCTAGCTCTTGGGGGCTGCTTAGTATGTTCTGCCTTT 88

Db 1 ATGAGAAAGCTTCTGAATTTGAGTTTGCTAGCTCTTGGGGGCTGCTTAGTATGTTCTGCCTTT 60

QY 89 GCTGTAAGAAAATCCCATGATTAATGACTGTGGGAGAGACCTTGAACCTGCTTCCCATTCAT 148

Db 61 GCTGTAAGAAAATCCCATGATTAATGACTGTGGGAGAGACCTTGAACCTGCTTCCCATTCAT 120

QY 149 CGAATTTGGCTGATATGAGCGCATGGGAAACGATGATTTCCACTCCCTGAAAATATAAAATTCAC 208

Db 121 CGAATTTGGCTGATATGAGCGCATGGGAAACCTGATGATTTCCACTCCCTGAAAATATAAAATTCAC 180

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QY 209 CAATCTGCATTAAAGAGTTTTCAGGGTATAGACATTTGAAGAACCAATGCCAC 268
DB 181 CAATCTGCATTAAAGAGTTTTCAGGGTATAGACATTTGAAGAACCAATGCCAC 240
QY 269 GGGAGAGCTGTGATTAACCTTCCAAACTGCTTTAATAAAGAACCATAGAGCG 328
DB 241 GGGAGAGCTGTGATTAACCTTCCAAACTGCTTTAATAAAGAACCATAGAGCG 300
QY 329 CAAAAAAGAGTGTGACAGAGAAAGATGAGAGTGAACAAAGTCTAGACTAGTCAA 388
DB 301 CAAAAAAGAGTGTGACAGAGAAAGATGAGAGTGAACAAAGTCTAGACTAGTCAA 360
QY 389 GTATTCTTGTTGTTAATAACCGAGTGTGACACCGGAAAGT 430
DB 361 GTATTCTTGTTGTTAATAACCGAGTGTGACACCGGAAAGT 402
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RESULT 6

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US-09-322-409-84/C
; Sequence 84, Application US/09322409
; Patent No. 6471957
; GENERAL INFORMATION:
; APPLICANT: Sim, Gek-Kee
; APPLICANT: Yang, Shumin
; APPLICANT: Drelitz, Matthew J.
; TITLE OF INVENTION: CANINE AND FELINE IMMUNOREGULATORY PROTEINS, NUCLEIC
; FILE REFERENCE: IM-2-C1
; CURRENT APPLICATION NUMBER: US/09/322,409
; EARLIER FILING DATE: 1999-05-28
; EARLIER APPLICATION NUMBER: 60/087,306
; EARLIER FILING DATE: 1998-05-29
; NUMBER OF SEQ ID NOS: 154
; SOFTWARE: PatentIn Ver. 2.0
; SEQ ID NO 84
; LENGTH: 402
; TYPE: DNA
; ORGANISM: Canis familiaris
US-09-322-409-84
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Query Match 65.9%; Score 402; DB 4; Length 402;

Best Local Similarity 100.0%; Pred. No. 9.6e-195; Mismatches 0; Indels 0; Gaps 0;

Matches 402; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

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DB 402 ATGAGATGCTTCTGAATTTGAGTTGCTAGCTCTGGGCTGCTATGTTTCTGCTTT 343
QY 89 GCTGTAGAAAATCCCATGATATGACTGTGCGACAGACCTTGACACTGCTCTCCATCAT 148
DB 342 GCTGTAGAAAATCCCATGATATGACTGTGCGACAGACCTTGACACTGCTCTCCATCAT 283
QY 149 CGAAGTGGCTGATAGAGGAGTGGAACTGTGATGATTCCTACTCTGTAATAAATAAATCAC 208
DB 282 CGAAGTGGCTGATAGAGGAGTGGAACTGTGATGATTCCTACTCTGTAATAAATAAATCAC 223
QY 209 CAATCTGCATTAAAGAGTTTTCAGGGTATAGACATTTGAAGAACCAATGCCAC 268
DB 222 CAATCTGCATTAAAGAGTTTTCAGGGTATAGACATTTGAAGAACCAATGCCAC 163
QY 269 GGGAGAGCTGTGATTAACCTTCCAAACTGCTTTAATAAAGAACCATAGAGCG 328
DB 162 GGGAGAGCTGTGATTAACCTTCCAAACTGCTTTAATAAAGAACCATAGAGCG 103
QY 329 CAAAAAAGAGTGTGACAGAGAAAGATGAGAGTGAACAAAGTCTAGACTAGTCAA 388
DB 102 CAAAAAAGAGTGTGACAGAGAAAGATGAGAGTGAACAAAGTCTAGACTAGTCAA 43
QY 389 GTATTCTTGTTGTTAATAACCGAGTGTGACACCGGAAAGT 430
DB 42 GTATTCTTGTTGTTAATAACCGAGTGTGACACCGGAAAGT 1
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RESULT 7

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US-09-451-527-83
; Sequence 83, Application US/09451527
; Patent No. 6482403
; GENERAL INFORMATION:
; APPLICANT: Sim, Gek-Kee
; APPLICANT: Yang, Shumin
; APPLICANT: Drelitz, Matthew J.
; TITLE OF INVENTION: CANINE AND FELINE IMMUNOREGULATORY PROTEINS, NUCLEIC
; FILE REFERENCE: IM-2-C2
; CURRENT APPLICATION NUMBER: US/09/451,527
; EARLIER FILING DATE: 1999-12-01
; EARLIER APPLICATION NUMBER: 09/322,409
; EARLIER FILING DATE: 1999-05-28
; EARLIER APPLICATION NUMBER: 60/087,306
; EARLIER FILING DATE: 1998-05-29
; NUMBER OF SEQ ID NOS: 174
; SOFTWARE: PatentIn Ver. 2.0
; SEQ ID NO 83
; LENGTH: 402
; TYPE: DNA
; ORGANISM: Canis familiaris
US-09-451-527-83
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Query Match 65.9%; Score 402; DB 4; Length 402;

Best Local Similarity 100.0%; Pred. No. 9.6e-195; Mismatches 0; Indels 0; Gaps 0;

Matches 402; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

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DB 1 ATGAGATGCTTCTGAATTTGAGTTGCTAGCTCTGGGCTGCTATGTTTCTGCTTT 60
QY 89 GCTGTAGAAAATCCCATGATATGACTGTGCGACAGACCTTGACACTGCTCTCCATCAT 148
DB 61 GCTGTAGAAAATCCCATGATATGACTGTGCGACAGACCTTGACACTGCTCTCCATCAT 120
QY 149 CGAAGTGGCTGATAGAGGAGTGGAACTGTGATGATTCCTACTCTGTAATAAATAAATCAC 208
DB 121 CGAAGTGGCTGATAGAGGAGTGGAACTGTGATGATTCCTACTCTGTAATAAATAAATCAC 180
QY 209 CAATCTGCATTAAAGAGTTTTCAGGGTATAGACATTTGAAGAACCAATGCCAC 268
DB 181 CAATCTGCATTAAAGAGTTTTCAGGGTATAGACATTTGAAGAACCAATGCCAC 240
QY 269 GGGAGAGCTGTGATTAACCTTCCAAACTGCTTTAATAAAGAACCATAGAGCG 328
DB 241 GGGAGAGCTGTGATTAACCTTCCAAACTGCTTTAATAAAGAACCATAGAGCG 300
QY 329 CAAAAAAGAGTGTGACAGAGAAAGATGAGAGTGAACAAAGTCTAGACTAGTCAA 388
DB 301 CAAAAAAGAGTGTGACAGAGAAAGATGAGAGTGAACAAAGTCTAGACTAGTCAA 360
QY 389 GTATTCTTGTTGTTAATAACCGAGTGTGACACCGGAAAGT 430
DB 361 GTATTCTTGTTGTTAATAACCGAGTGTGACACCGGAAAGT 402
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RESULT 8

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US-09-451-527-84/C
; Sequence 84, Application US/09451527
; Patent No. 6482403
; GENERAL INFORMATION:
; APPLICANT: Sim, Gek-Kee
; APPLICANT: Yang, Shumin
; APPLICANT: Drelitz, Matthew J.
; TITLE OF INVENTION: CANINE AND FELINE IMMUNOREGULATORY PROTEINS, NUCLEIC
; FILE REFERENCE: IM-2-C2
; CURRENT APPLICATION NUMBER: US/09/451,527
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CURRENT FILING DATE: 1999-12-01
EARLIER APPLICATION NUMBER: 09/322,409
EARLIER FILING DATE: 1999-05-28
EARLIER APPLICATION NUMBER: 60/087,306
NUMBER OF SEQ ID NOS: 174
SOFTWARE: PatentIn Ver. 2.0
SEQ ID NO 84
LENGTH: 402
TYPE: DNA
ORGANISM: Canis familiaris
US-09-451-527-84

Query Match 65.9%; Score 402; DB 4; Length 402;
Best Local Similarity 100.0%; Pred. No. 9.6e-195;
Matches 402; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 29 ATGAGAAATCTTCTGAATTTGAGTTGCTAGCTCTTGGGGCTGCTATGTTTCTGCCCTTT 88
DB 402 ATGAGAAATCTTCTGAATTTGAGTTGCTAGCTCTTGGGGCTGCTATGTTTCTGCCCTTT 343
QY 89 GCTGTAGAAAATCCCATGATGACTGTGGCAGAGACCTTGAACCTGCTCCACTCAT 148
DB 342 GCTGTAGAAAATCCCATGATGACTGTGGCAGAGACCTTGAACCTGCTCCACTCAT 283
QY 149 CGAATCTGGCTGATAGGGGAGGAACTGATGATTCCTACTCCGAAAATTAATAATCAC 208
DB 282 CGAATCTGGCTGATAGGGGAGGAACTGATGATTCCTACTCCGAAAATTAATAATCAC 223
QY 209 CAACGTGCAATTAAGAAGTTTTCAGGGTATAGACATTTGAAGAACCAATGCCAC 268
DB 222 CAACGTGCAATTAAGAAGTTTTCAGGGTATAGACATTTGAAGAACCAATGCCAC 163
QY 269 GGGGAGCTGTGATTAACCTATTCCTTTTAAATTAAGAAACATAGAGCC 328
DB 162 GGGGAGCTGTGATTAACCTATTCCTTTTAAATTAAGAAACATAGAGCC 103
QY 329 CAAAAAAGGTGCGAGAGAAAGATGAGAGTGAAGAAAGTTCTGACTGCTGCA 388
DB 102 CAAAAAAGGTGCGAGAGAAAGATGAGAGTGAAGAAAGTTCTGACTGCTGCA 43
QY 389 GTATTTCTTGTGTATTAACACGAGTGAACCCGAAAGT 420
DB 42 GTATTTCTTGTGTATTAACACGAGTGAACCCGAAAGT 1

RESULT 9
US-09-371-615A-1
Sequence 1, Application US/09371615A
Patent No. 6537781
GENERAL INFORMATION:
APPLICANT: IDEXX LABORATORIES
TITLE OF INVENTION: METHODS AND COMPOSITIONS CONCERNING
TITLE OF INVENTION: CANINE INTERLEUKIN 5
FILE REFERENCE: 03604001700US00
CURRENT APPLICATION NUMBER: US/09/371,615A
CURRENT FILING DATE: 1999-08-10
NUMBER OF SEQ ID NOS: 8
SOFTWARE: FastSeq for Windows Version 3.0
SEQ ID NO 1
LENGTH: 405
TYPE: DNA
ORGANISM: Canis familiaris
US-09-371-615A-1

Query Match 64.4%; Score 393; DB 4; Length 405;
Best Local Similarity 100.0%; Pred. No. 3.7e-190;
Matches 393; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 29 ATGAGAAATCTTCTGAATTTGAGTTGCTAGCTCTTGGGGCTGCTATGTTTCTGCCCTTT 88
DB 1 ATGAGAAATCTTCTGAATTTGAGTTGCTAGCTCTTGGGGCTGCTATGTTTCTGCCCTTT 60

QY 89 GCTGTAGAAAATCCCATGATGACTGTGGCAGAGACCTTGAACCTGCTCCACTCAT 148
DB 61 GCTGTAGAAAATCCCATGATGACTGTGGCAGAGACCTTGAACCTGCTCCACTCAT 120
QY 149 CGAACTTGGCTGATAGCGATGGAACCTGATGATTCCTTAAATTAAGAAACATAGAGCC 208
DB 121 CGAACTTGGCTGATAGCGATGGAACCTGATGATTCCTTAAATTAAGAAACATAGAGCC 180
QY 209 CAACGTGCAATTAAGAAGTTTTCAGGGTATAGACATTTGAAGAACCAATGCCAC 268
DB 181 CAACGTGCAATTAAGAAGTTTTCAGGGTATAGACATTTGAAGAACCAATGCCAC 240
QY 269 GGGGAGCTGTGATTAACCTATTCCTTTTAAATTAAGAAACATAGAGCC 328
DB 241 GGGGAGCTGTGATTAACCTATTCCTTTTAAATTAAGAAACATAGAGCC 300
QY 329 CAAAAAAGGTGCGAGAGAAAGATGAGAGTGAAGAAAGTTCTGACTGCTGCA 388
DB 301 CAAAAAAGGTGCGAGAGAAAGATGAGAGTGAAGAAAGTTCTGACTGCTGCA 360
QY 389 GTATTTCTTGTGTATTAACACGAGTGA 421
DB 361 GTATTTCTTGTGTATTAACACGAGTGA 393

RESULT 10
US-09-322-409-85
Sequence 85, Application US/09322409
Patent No. 6471957
GENERAL INFORMATION:
APPLICANT: Sim, Gek-Ke
APPLICANT: Yang, Shumin
APPLICANT: Dreitz, Matthew J.
TITLE OF INVENTION: CANINE AND FELINE IMMUNOREGULATORY PROTEINS, NUCLEIC
FILE REFERENCE: IM-2-C1
TITLE OF INVENTION: ACID MOLECULES, AND USES THEREOF
CURRENT APPLICATION NUMBER: US/09/322,409
EARLIER FILING DATE: 1999-05-28
EARLIER APPLICATION NUMBER: 60/087,306
NUMBER OF SEQ ID NOS: 154
SOFTWARE: PatentIn Ver. 2.0
SEQ ID NO 85
LENGTH: 345
TYPE: DNA
ORGANISM: Canis familiaris
FEATURE:
NAME/KEY: CDS
LOCATION: (1)..
US-09-322-409-85

Query Match 56.6%; Score 345; DB 4; Length 345;
Best Local Similarity 100.0%; Pred. No. 1.1e-165;
Matches 345; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 86 TTTGCTGTAGAAAATCCCATGATGACTGTGGCAGAGACCTTGAACCTGCTCCACT 145
DB 1 TTTGCTGTAGAAAATCCCATGATGACTGTGGCAGAGACCTTGAACCTGCTCCACT 60
QY 146 CATGGAATCTGGCTGATAGGGGAGGAACTGATGATTCCTACTCCGAAAATTAATAAT 205
DB 61 CATGGAATCTGGCTGATAGGGGAGGAACTGATGATTCCTACTCCGAAAATTAATAAT 120
QY 206 CACCACTGTGATTAAGAAGTTTTCAGGGTATAGACATTTGAAGAACCAATGCC 265
DB 121 CACCACTGTGATTAAGAAGTTTTCAGGGTATAGACATTTGAAGAACCAATGCC 180
QY 266 CACGGGAGGCTGTGATTAACCTATTCCTTTTAAATTAAGAAACATAGAG 325
DB 181 CACGGGAGGCTGTGATTAACCTATTCCTTTTAAATTAAGAAACATAGAG 240
QY 326 CGCCAAAAAAGGTGCGAGAGAAAGATGAGAGTGAAGAAAGTTCTGACTGCTGCA 385

Db 241 CGCCAAAAGAGTGTGCGAGAGAAAGATGAGAGCAAAAGTCTTAGACTACTG 300
Qy 386 CAAGTATTTCTTGCTGTATTAACACCGAGTGCACCGGAAAGT 430
Db 301 CAAGTATTTCTTGCTGTATTAACACCGAGTGCACCGGAAAGT 345

RESULT 11

US-09-322-409-87/c
Sequence 87, Application US/09322409
Patent No. 6471957
GENERAL INFORMATION:
APPLICANT: Sim, Gek-Kea
APPLICANT: Yang, Shumin
APPLICANT: Drelitz, Matthew J.
APPLICANT: Wonderling, Ramani S.
TITLE OF INVENTION: CANINE AND FELINE IMMUNOREGULATORY PROTEINS, NUCLEIC
ACID MOLECULES, AND USES THEREOF
FILE REFERENCE: IM-2-C1
CURRENT APPLICATION NUMBER: US/09/322,409
CURRENT FILING DATE: 1999-05-28
EARLIER APPLICATION NUMBER: 60/087,306
EARLIER FILING DATE: 1998-05-29
NUMBER OF SEQ ID NOS: 154
SOFTWARE: PatentIn Ver. 2.0
SEQ ID NO: 87
LENGTH: 345
TYPE: DNA
ORGANISM: Canis familiaris
US-09-322-409-87

Query Match 56.6%; Score 345; DB 4; Length 345;
Best Local Similarity 100.0%; Pred. No. 1.1e-165;
Matches 345; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 86 TTTCCTGTAGAAAATCCCATGAATAGACTGTGCGAGAGACTTGACACTGCTCCACT 145
Db 345 TTTCCTGTAGAAAATCCCATGAATAGACTGTGCGAGAGACTTGACACTGCTCCACT 286
Qy 146 CATGGAAGCTTGCTGTAGAGGAGATGGAACTGATGATTTCTTACTCTGAAATTAATAAT 205
Db 285 CATGGAAGCTTGCTGTAGAGGAGATGGAACTGATGATTTCTTACTCTGAAATTAATAAT 226
Qy 206 CACCAACTGTGCATTAAAGAAAGTTTTCAGGGTATAGACATTTGAAGAACCAACTGCC 265
Db 225 CACCAACTGTGCATTAAAGAAAGTTTTCAGGGTATAGACATTTGAAGAACCAACTGCC 166
Qy 266 CACGGGAGGCTGTGCGATGAATCTATTCGAAAATTTGCTTTAATTAAGAACCATAGAG 325
Db 165 CACGGGAGGCTGTGCGATGAATCTATTCGAAAATTTGCTTTAATTAAGAACCATAGAG 106
Qy 326 CGCCAAAAGAGTGTGCGAGAGAAAGATGAGAGTGAAGTCTAGACTACTG 385
Db 105 CGCCAAAAGAGTGTGCGAGAGAAAGATGAGAGTGAAGTCTAGACTACTG 46
Qy 386 CAAGTATTTCTTGCTGTATTAACACCGAGTGCACCGGAAAGT 430
Db 45 CAAGTATTTCTTGCTGTATTAACACCGAGTGCACCGGAAAGT 1

RESULT 12

US-09-451-527-85
Sequence 85, Application US/09451527
Patent No. 6482403
GENERAL INFORMATION:
APPLICANT: Sim, Gek-Kea
APPLICANT: Yang, Shumin
APPLICANT: Drelitz, Matthew J.
APPLICANT: Wonderling, Ramani S.
TITLE OF INVENTION: CANINE AND FELINE IMMUNOREGULATORY PROTEINS, NUCLEIC
ACID MOLECULES, AND USES THEREOF
FILE REFERENCE: IM-2-C2

Qy 86 TTTCCTGTAGAAAATCCCATGAATAGACTGTGCGAGAGACTTGACACTGCTCCACT 145
Db 1 TTTCCTGTAGAAAATCCCATGAATAGACTGTGCGAGAGACTTGACACTGCTCCACT 60
Qy 146 CATGGAAGCTTGCTGTAGAGGAGATGGAACTGATGATTTCTTACTCTGAAATTAATAAT 205
Db 61 CATGGAAGCTTGCTGTAGAGGAGATGGAACTGATGATTTCTTACTCTGAAATTAATAAT 120
Qy 206 CACCAACTGTGCATTAAAGAAAGTTTTCAGGGTATAGACATTTGAAGAACCAACTGCC 265
Db 121 CACCAACTGTGCATTAAAGAAAGTTTTCAGGGTATAGACATTTGAAGAACCAACTGCC 180
Qy 266 CACGGGAGGCTGTGCGATGAATCTATTCGAAAATTTGCTTTAATTAAGAACCATAGAG 325
Db 181 CACGGGAGGCTGTGCGATGAATCTATTCGAAAATTTGCTTTAATTAAGAACCATAGAG 240
Qy 326 CGCCAAAAGAGTGTGCGAGAGAAAGATGAGAGTGAAGTCTAGACTACTG 385
Db 241 CGCCAAAAGAGTGTGCGAGAGAAAGATGAGAGTGAAGTCTAGACTACTG 300
Qy 386 CAAGTATTTCTTGCTGTATTAACACCGAGTGCACCGGAAAGT 430
Db 301 CAAGTATTTCTTGCTGTATTAACACCGAGTGCACCGGAAAGT 345

RESULT 13

US-09-451-527-87/c
Sequence 87, Application US/09451527
Patent No. 6482403
GENERAL INFORMATION:
APPLICANT: Sim, Gek-Kea
APPLICANT: Yang, Shumin
APPLICANT: Drelitz, Matthew J.
APPLICANT: Wonderling, Ramani S.
TITLE OF INVENTION: CANINE AND FELINE IMMUNOREGULATORY PROTEINS, NUCLEIC
ACID MOLECULES, AND USES THEREOF
FILE REFERENCE: IM-2-C2
CURRENT APPLICATION NUMBER: US/09/451,527
EARLIER APPLICATION NUMBER: 09/322,409
EARLIER FILING DATE: 1999-05-28
EARLIER APPLICATION NUMBER: 60/087,306
EARLIER FILING DATE: 1998-05-29
NUMBER OF SEQ ID NOS: 174
SOFTWARE: PatentIn Ver. 2.0
SEQ ID NO: 87
LENGTH: 345
TYPE: DNA
ORGANISM: Canis familiaris
US-09-451-527-87

Query Match 56.6%; Score 345; DB 4; Length 345;

Best Local Similarity 100.0%; Pred. No. 1.1e-165;
Matches 345; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

OY 86 TTCTGTGAGAAATCCCATTAATGACTGTGTCAGAGACCTGCTCCACT 145
Db 345 TTCTGTGAGAAATCCCATTAATGACTGTGTCAGAGACCTGCTCCACT 286
OY 146 CATGAACTTGGCTGATAGCGATGGAACCTGATGATCTCTACTCCGAAATAAAT 205
Db 285 CATGAACTTGGCTGATAGCGATGGAACCTGATGATCTCTACTCCGAAATAAAT 226
OY 206 CACCACTGTGCTAATAAGAGTTTTCAGGGTATAGACATTTGAAGAACCAACTGCC 265
Db 225 CACCACTGTGCTAATAAGAGTTTTCAGGGTATAGACATTTGAAGAACCAACTGCC 166
OY 266 CACGGGAGGCTGTGATTAACCTATTCCTTTAATTAATAAGAACCATATGAG 325
Db 165 CACGGGAGGCTGTGATTAACCTATTCCTTTAATTAATAAGAACCATATGAG 106
OY 326 CGCCAAAAAAGAGTGTGACAGAGAAAGATGAGAGTGAACAAAGTTCTAGACTACTG 385
Db 105 CGCCAAAAAAGAGTGTGACAGAGAAAGATGAGAGTGAACAAAGTTCTAGACTACTG 46
OY 386 CAAGTATTCTTGTGTATTAACAACCGAGTGAACCCGAAAGT 430
Db 45 CAAGTATTCTTGTGTATTAACAACCGAGTGAACCCGAAAGT 1

RESULT 14
US-08-434-503-41
Sequence 41, Application US/08434503
Patent No. 5616490
GENERAL INFORMATION:
APPLICANT: Sean M. Sullivan
TITLE OF INVENTION: METHOD AND REAGENT FOR
TREATMENT OF INFLAMMATORY
DISEASE
TITLE OF INVENTION: DISEASE
NUMBER OF SEQUENCES: 54
CORRESPONDENCE ADDRESS:
ADDRESSEE: Lyon & Lyon
STREET: 611 West Sixth Street
CITY: Los Angeles
STATE: California
COUNTRY: USA
ZIP: 90017
COMPUTER READABLE FORM:
MEDIUM TYPE: 3.5" Diskette, 1.44 Mb storage
COMPUTER: IBM Compatible
OPERATING SYSTEM: IBM MS-DOS (Version 5.0)
SOFTWARE: WordPerfect (Version 5.1)
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/434, 503
FILING DATE: 04-MAY-1995
CLASSIFICATION: 435
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 08/008, 895
FILING DATE: 19-JAN-1993
APPLICATION NUMBER: 07/989, 849
FILING DATE: December 7, 1992
ATTORNEY/AGENT INFORMATION:
NAME: Warburg, Richard J.
REGISTRATION NUMBER: 32,327
REFERENCE/DOCKET NUMBER: 200/276
TELECOMMUNICATION INFORMATION:
TELEPHONE: (213) 489-1600
TELEFAX: (213) 955-0440
TELEX: 67-3510
INFORMATION FOR SEQ ID NO: 41:
SEQUENCE CHARACTERISTICS:
LENGTH: 27
TYPE: nucleic acid
STRANDEDNESS: single

TOPOLOGY: linear
US-08-434-503-41

Query Match 3.6%; Score 22; DB 1; Length 27;
Best Local Similarity 54.5%; Pred. No. 0.38;
Matches 12; Conservative 10; Mismatches 0; Indels 0; Gaps 0;

OY 45 ATTGAGTTGCTAGCTCTTGG 66
Db 1 AATUGAGUUGCUAGCUCUUG 22

RESULT 15
US-09-322-409-138/C

Sequence 138, Application US/09322409
Patent No. 6471957
GENERAL INFORMATION:
APPLICANT: Sim, Gek-Ke
APPLICANT: Yang, Shumin
APPLICANT: Drelitz, Matthew J.
APPLICANT: Wonderting, Ramani S.
TITLE OF INVENTION: CANINE AND FELINE IMMUNOREGULATORY PROTEINS, NUCLEIC
ACID MOLECULES, AND USES THEREOF
FILE REFERENCE: IM-2-C1
CURRENT APPLICATION NUMBER: US/09/322,409
CURRENT FILING DATE: 1999-05-28
EARLIER APPLICATION NUMBER: 60/087,306
EARLIER FILING DATE: 1998-05-29
NUMBER OF SEQ ID NOS: 154
SOFTWARE: PatentIn Ver. 2.0
SEQ ID NO 138
LENGTH: 32
TYPE: DNA
ORGANISM: Artificial Sequence
FEATURE:
OTHER INFORMATION: Description of Artificial Sequence: Synthetic
US-09-322-409-138

Query Match 3.6%; Score 22; DB 4; Length 32;
Best Local Similarity 100.0%; Pred. No. 0.38;
Matches 22; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

OY 413 GAGTGCACACCGGAAAGTTGAG 434
Db 32 GAGTGCACACCGGAAAGTTGAG 11

Search completed: August 8, 2005, 13:43:35
Job time: 124.226 secs

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CC ligand), canine IL-5, canine IL-13, feline interferon-alpha (IFN-alpha)
 CC and feline granulocyte macrophage colony-stimulating factor (GM-CSF), and
 CC nucleotides which encode these immunoregulatory proteins. The proteins,
 CC their associated nucleic acids, specific antibodies and inhibitors may be
 CC used as vaccines for therapeutic or prophylactic regulation of an immune
 CC response in animals (particularly cats, dogs, horses and humans). They
 CC may be used to treat autoimmune or infectious diseases including
 CC allergies, tumours, inflammation and graft rejection, and to increase the
 CC response from a co-administered antigen. The nucleotide sequences can
 CC also be used for the recombinant production of a protein, while
 CC nucleotide fragments are useful as probes, as amplification primers and
 CC as sources of inhibitory therapeutics (e.g., antisense oligonucleotides).
 CC The proteins may be used to raise antibodies and to screen for modulators
 CC of activity, while the antibodies may be used in detection, and in drug
 CC targeting

XX Sequence 610 BP; 202 A; 114 C; 139 G; 155 T; 0 U; 0 Other;

Query Match 100.0%; Score 610; DB 3; Length 610;
 Best Local Similarity 100.0%; Pred. No. 1.9e-306;
 Matches 610; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 CAAGGCAAAACACGACATTTGAGAGCTATGAGATGCTTGAATTTGAGTTGCTAGC 60
 DB 1 CAAGGCAAAACACGACATTTGAGAGCTATGAGATGCTTGAATTTGAGTTGCTAGC 60
 QY 61 TCTTGGGGCTGCTCATGTTTCTGCTTGTGCTGTAAGAAATCCATGATAGCTGTGCG 120
 DB 61 TCTTGGGGCTGCTCATGTTTCTGCTTGTGCTGTAAGAAATCCATGATAGCTGTGCG 120
 QY 121 AGAAGCTTGACATGCTCTCTCACTCATGAACTTGGCTGATAGCGGAACTGAT 180
 DB 121 AGAAGCTTGACATGCTCTCTCACTCATGAACTTGGCTGATAGCGGAACTGAT 180
 QY 181 GATTCTACTCTCTGAAAAATATAAAATCAACCTGCACTTAAAGTTTTCAGGGTAT 240
 DB 181 GATTCTACTCTCTGAAAAATATAAAATCAACCTGCACTTAAAGTTTTCAGGGTAT 240
 QY 241 AGACACATTTGAAGAACCAAACTGCGCAAGGGAGGCTGTGATTAACCTTCCAAAATT 300
 DB 241 AGACACATTTGAAGAACCAAACTGCGCAAGGGAGGCTGTGATTAACCTTCCAAAATT 300
 QY 301 GTCTTTAATAAAGAACACATAGAGCGGCAAAAAAGGTGTGCAGAGAAAGATGAG 360
 DB 301 GTCTTTAATAAAGAACACATAGAGCGGCAAAAAAGGTGTGCAGAGAAAGATGAG 360
 QY 361 AGTACAAAAGTTCTAGACTACCTGCAAGTATTTCTGATTAATAACCCAGGTGAC 420
 DB 361 AGTACAAAAGTTCTAGACTACCTGCAAGTATTTCTGATTAATAACCCAGGTGAC 420
 QY 421 ACCGAAAAGTTGAGAACCAACCGGCTTATTTAGTGAAGATTTTGGAGAAATGGTTT 480
 DB 421 ACCGAAAAGTTGAGAACCAACCGGCTTATTTAGTGAAGATTTTGGAGAAATGGTTT 480
 QY 481 TTTGGCCATGAGATGAGGGCCAAACCAAGTAGGACTTAATGGCCAGTTAATCTAAC 540
 DB 481 TTTGGCCATGAGATGAGGGCCAAACCAAGTAGGACTTAATGGCCAGTTAATCTAAC 540
 QY 541 TTTGAGAGCAAAAGTAATTTTCAAGGACTCTACTACTTTTCACTTCAACAGATGAA 600
 DB 541 TTTGAGAGCAAAAGTAATTTTCAAGGACTCTACTACTTTTCACTTCAACAGATGAA 600
 QY 601 TATATTTGAG 610
 DB 601 TATATTTGAG 610

RESULT 2
 AA25547/c
 ID AA25547 standard; cDNA; 610 BP.

XX AC AA25547;
 XX

DT 14-MAR-2000 (first entry)
 XX Canine Interleukin-5 (IL-5) cDNA complement.
 DE Interleukin-5; IL-5; antibody; canine; inhibitor; immune response;
 KW Immunoregulation; tumour; cancer; autoimmune disease; vaccine; ss.
 XX
 OS Canis familiaris.
 XX
 FH Key Location/Qualifiers
 FT CDS complement(178..582)
 FT /tag=a
 FT /product="Canine IL-5"
 XX
 PN WO961618-A2.
 XX
 PD 02-DEC-1999.
 XX
 PF 28-MAY-1999; 99MO-US011942.
 XX
 PR 29-MAY-1998; 98US-0087306P.
 XX
 PA (HESKA-) HESKA CORP.
 XX
 PI Sim G, Yang S, Dretz MJ, Wonderling RS;
 XX
 DR WPI; 2000-072623/06.
 DR P-PSDB; AAY58219.
 XX
 PT Nucleic acids encoding immunoregulatory proteins from cats or dogs,
 PT useful for treating or preventing e.g. tumors or autoimmune disease.
 XX
 XX Claim 1b; Page 224-225; 264pp; English.

XX Sequences AA25546-Z5551 represent cDNA sequences encoding canine
 CC Interleukin-5 (IL-5). The invention relates to canine IL-4, canine or
 CC feline IL-3 ligand, canine or feline CD40, canine or feline CD134 (CD40
 CC ligand), canine IL-5, canine IL-13, feline interferon-alpha (IFN-alpha)
 CC and feline granulocyte macrophage colony-stimulating factor (GM-CSF), and
 CC nucleotides which encode these immunoregulatory proteins. The proteins,
 CC their associated nucleic acids, specific antibodies and inhibitors may be
 CC used as vaccines for therapeutic or prophylactic regulation of an immune
 CC response in animals (particularly cats, dogs, horses and humans). They
 CC may be used to treat autoimmune or infectious diseases including
 CC allergies, tumours, inflammation and graft rejection, and to increase the
 CC response from a co-administered antigen. The nucleotide sequences can
 CC also be used for the recombinant production of a protein, while
 CC nucleotide fragments are useful as probes, as amplification primers and
 CC as sources of inhibitory therapeutics (e.g., antisense oligonucleotides).
 CC The proteins may be used to raise antibodies and to screen for modulators
 CC of activity, while the antibodies may be used in detection, and in drug
 CC targeting

SO Sequence 610 BP; 155 A; 139 C; 114 G; 202 T; 0 U; 0 Other;

Query Match 100.0%; Score 610; DB 3; Length 610;
 Best Local Similarity 100.0%; Pred. No. 1.9e-306;
 Matches 610; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 CAAGGCAAAACACGACATTTGAGAGCTATGAGATGCTTGAATTTGAGTTGCTAGC 60
 DB 610 CAAGGCAAAACACGACATTTGAGAGCTATGAGATGCTTGAATTTGAGTTGCTAGC 551
 QY 61 TCTTGGGGCTGCTCATGTTTCTGCTTGTGCTGTAAGAAATCCATGATAGCTGTGCG 120
 DB 550 TCTTGGGGCTGCTCATGTTTCTGCTTGTGCTGTAAGAAATCCATGATAGCTGTGCG 491
 QY 121 AGAAGCTTGACATGCTCTCTCACTCATGAACTTGGCTGATAGCGGAACTGAT 180
 DB 490 AGAAGCTTGACATGCTCTCTCACTCATGAACTTGGCTGATAGCGGAACTGAT 431
 QY 181 GATTCTACTCTCTGAAAAATATAAAATCAACCTGCACTTAAAGTTTTCAGGGTAT 240

```
Db 430 GATTCTACTCTCGAATAAATAATCAACAACGACTGTCATTAAGAAGTTTTCAGGGTAT 371
Qy 241 AGAACAATTGAAAGAACCAAACTGCGCCAGGGAGGCTGTGATTAACATTTCCAAAATT 300
Db 370 AGACACATGGAAGAACCAAACTGCGCCAGGGAGGCTGTGATTAACATTTCCAAAATT 311
Qy 301 GCTTTTATAAATAACACATAGAGCGCCAAAATAAAAGTGTGCAGAGAAAGATGAG 360
Db 310 GCTTTTATAAATAACACATAGAGCGCCAAAATAAAAGTGTGCAGAGAAAGATGAG 251
Qy 361 AGTACAAAGTTCTAGACTGACAGTAATTTCTGTGTATTAACACCGAGTGAC 420
Db 250 AGTACAAAGTTCTAGACTGACAGTAATTTCTGTGTATTAACACCGAGTGAC 191
Qy 421 ACCGGAAGTTGAGAAACAAACCGGCTTATTGTAGTGAAGTTTGGAGAAATGCTT 480
Db 190 ACCGGAAGTTGAGAAACAAACCGGCTTATTGTAGTGAAGTTTGGAGAAATGCTT 131
Qy 481 TTTGGCGATGAGAAATGAGGCGCAACCAACAGTAGGAGCTTAATGCGCAGTAACTAAGC 540
Db 130 TTTGGCGATGAGAAATGAGGCGCAACCAACAGTAGGAGCTTAATGCGCAGTAACTAAGC 71
Qy 541 TTCAAGACAAAGTAATATTTTTCAGGCACTCTACTATTATCACTTCAACAGATGAA 600
Db 70 TTCAAGACAAAGTAATATTTTTCAGGCACTCTACTATTATCACTTCAACAGATGAA 11
Qy 601 TATATTTGAG 610
Db 10 TATATTTGAG 1

RESULT 3
AAZ55548
ID AAZ55548 standard; cDNA; 402 BP.
AC AAZ55548;
XX
XX 14-MAR-2000 (first entry)
DT
XX Canine interleukin-5 (IL-5) cDNA coding region.
DE
XX Interleukin-5; IL-5; antibody; canine; inhibitor; immune response;
KW immunoregulation; tumour; cancer; autoimmune disease; vaccine; ss.
XX
XX Canis familiaris.
OS
XX WO9961618-A2.
PN
XX 02-DEC-1999.
PD
XX 28-MAY-1999; 99WO-US011942.
PF
XX 29-MAY-1998; 98US-0087306P.
PR
XX (HESK-) HESKA CORP.
PA
XX Sim G, Yang S, Dreitz MJ, Wonderling RS;
PI
XX WPI; 2000-072623/06.
DR P-PSDB; AAY58219.
XX
XX Nucleic acids encoding immunoregulatory proteins from cats or dogs.
PT useful for treating or preventing e.g. tumors or autoimmune disease.
XX
XX Claim 1h; Page 225; 264dp; English.
XX
XX Sequences AAZ55546-25551 represent cDNA sequences encoding canine
CC interleukin-5 (IL-5). The invention relates to canine IL-4, canine or
CC feline Flt-3 ligand, canine or feline CD40, canine or feline CD134 (CD40
CC ligand), canine IL-5, canine IL-13, feline interferon-alpha (IFN-alpha)
CC and feline granulocyte macrophage colony-stimulating factor (GM-CSF), and
CC nucleotides which encode these immunoregulatory proteins. The proteins,
CC their associated nucleic acids, specific antibodies and inhibitors may be
```

```
CC used as vaccines for therapeutic or prophylactic regulation of an immune
CC response in animals (particularly cats, dogs, horses and humans). They
CC may be used to treat autoimmune or infectious diseases including
CC allergies, tumours, inflammation and graft rejection, and to increase the
CC response from a co-administered antigen. The nucleotide sequences can
CC also be used for the recombinant production of a protein, while
CC nucleotide fragments are useful as probes, as amplification primers and
CC as sources of inhibitory therapeutics (e.g., antisense oligonucleotides).
CC The proteins may be used to raise antibodies and to screen for modulators
CC of activity, while the antibodies may be used in detection, and in drug
CC targeting
XX
SQ Sequence 402 BP; 129 A; 79 C; 93 G; 101 T; 0 U; 0 Other;

Query Match 65.9%; Score 402; DB 3; Length 402;
Best Local Similarity 100.0%; Pred. No. 2.8e-198;
Matches 402; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 29 ATGAGAAATGCTTCTGAATTTGAGTTTGTCTAGCTCTTGCGGCTGCTATGTTTCTGCTTT 88
Db 1 ATGAGAAATGCTTCTGAATTTGAGTTTGTCTAGCTCTTGCGGCTGCTATGTTTCTGCTTT 60
Qy 89 GCTGTAGAAAATCCCATGAATAGACTGTGTGAGAGACCTTGACACTGCTCTCCACTCAT 148
Db 61 GCTGTAGAAAATCCCATGAATAGACTGTGTGAGAGACCTTGACACTGCTCTCCACTCAT 120
Qy 149 CGAAGTTGGCTGATGAGCGGATGAGGAACTTGTATTTCTTCTTCTGAAAAATAAATATAC 208
Db 121 CGAAGTTGGCTGATGAGCGGATGAGGAACTTGTATTTCTTCTTCTGAAAAATAAATATAC 180
Qy 209 CAAGTGTGATTAAGAAAGTTTTCAGGGTATAGACATTTGAAGAACCAACTGCCAC 268
Db 181 CAAGTGTGATTAAGAAAGTTTTCAGGGTATAGACATTTGAAGAACCAACTGCCAC 240
Qy 269 GGGGAGGCTGTGATTAAGCTATTTCCAAAACCTTCTTTATTAAGAAACATAGAGCGC 328
Db 241 GGGGAGGCTGTGATTAAGCTATTTCCAAAACCTTCTTTATTAAGAAACATAGAGCGC 300
Qy 329 CAAAAAAGAGTGTGACGAGGAAAGATGAGAGTGCACAAAGTTCTTGAATCTTACCTGCA 388
Db 301 CAAAAAAGAGTGTGACGAGGAAAGATGAGAGTGCACAAAGTTCTTGAATCTTACCTGCA 360
Qy 389 GTATTTCTTGTGATTAATTAACACCGAGTGACACCGGAAAGT 430
Db 361 GTATTTCTTGTGATTAATTAACACCGAGTGACACCGGAAAGT 402

RESULT 4
AAZ55549/c
ID AAZ55549 standard; cDNA; 402 BP.
AC AAZ55549;
XX
XX 14-MAR-2000 (first entry)
DT
XX Canine interleukin-5 (IL-5) cDNA coding region complement.
DE
XX Interleukin-5; IL-5; antibody; canine; inhibitor; immune response;
KW immunoregulation; tumour; cancer; autoimmune disease; vaccine; ss.
XX
XX Canis familiaris.
OS
XX WO9961618-A2.
PN
XX 02-DEC-1999.
PD
XX 28-MAY-1999; 99WO-US011942.
PF
XX 29-MAY-1998; 98US-0087306P.
PR
XX (HESK-) HESKA CORP.
PA
XX Sim G, Yang S, Dreitz MJ, Wonderling RS;
PI
```

XX WPI, 2000-072623/06.
DR P-PSDB; AAY58219.
XX
XX Nucleic acids encoding immunoregulatory proteins from cats or dogs.
PT useful for treating or preventing e.g. tumors or autoimmune disease.
XX
XX Claim 1b; Page 226; 264pp; English.
XX
XX Sequences AA255546-255551 represent cDNA sequences encoding canine
CC interleukin-5 (IL-5). The invention relates to canine IL-4, canine or
CC feline IL-3 ligand, canine or feline CD40, canine or feline CD154 (CD40
CC ligand), canine IL-5, canine IL-13, feline interferon-alpha (IFN-alpha)
CC and feline granulocyte macrophage colony-stimulating factor (GM-CSF), and
CC nucleotides which encode these immunoregulatory proteins. The proteins,
CC their associated nucleic acids, specific antibodies and inhibitors may be
CC used as vaccines for therapeutic or prophylactic regulation of an immune
CC response in animals (particularly cats, dogs, horses and humans). They
CC may be used to treat autoimmune or infectious diseases including
CC allergies, tumors, inflammation and graft rejection, and to increase the
CC response from a co-administered antigen. The nucleotide sequences can
CC also be used for the recombinant production of a protein, while
CC nucleotide fragments are useful as probes, as amplification primers and
CC as sources of inhibitory therapeutics (e.g., antisense oligonucleotides).
CC The proteins may be used to raise antibodies and to screen for modulators
CC of activity, while the antibodies may be used in detection, and in drug
CC targeting.
XX
SQ Sequence 402 BP; 101 A; 93 C; 79 G; 129 T; 0 U; 0 Other;
Query Match 65.9%; Score 402; DB 3; Length 402;
Best Local Similarity 100.0%; Pred. No. 2.8e-198;
Matches 402; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
QY 29 ATGAGAAATGCTTGAATTTGAGTTGCTAGCTCTGGGGCTGCTATGTTTCTGCTT 88
DB 402 ATGAGAAATGCTTGAATTTGAGTTGCTAGCTCTGGGGCTGCTATGTTTCTGCTT 343
QY 89 GCTGTAGAAAATCCCATGAATGAGCTGTGGCAGAGACCTTGACATGCTCTCCACTCAT 148
DB 342 GCTGTAGAAAATCCCATGAATGAGCTGTGGCAGAGACCTTGACATGCTCTCCACTCAT 283
QY 149 GGAATCTGGCTGATAGGCGATGGGAACCTGATGATTTCTACTCTGAAAATTAATAATCAC 208
DB 149 GGAATCTGGCTGATAGGCGATGGGAACCTGATGATTTCTACTCTGAAAATTAATAATCAC 208
QY 282 CGAATCTGGCTGATAGGCGATGGGAACCTGATGATTTCTACTCTGAAAATTAATAATCAC 223
DB 282 CGAATCTGGCTGATAGGCGATGGGAACCTGATGATTTCTACTCTGAAAATTAATAATCAC 223
QY 209 CAACTGTGATTAAGAAGTTTTCAGGGTATAGACATTTGAAGAACCAAACTGCCAC 268
DB 222 CAACTGTGATTAAGAAGTTTTCAGGGTATAGACATTTGAAGAACCAAACTGCCAC 163
QY 269 GGGGAGGCTGTGATTAAGTCTATTCCTTAATTAAGAAGACATAGAGCGC 328
DB 162 GGGGAGGCTGTGATTAAGTCTATTCCTTAATTAAGAAGACATAGAGCGC 103
QY 329 CAAATAAAGAGTGTGACAGGAAAGATGAGAGTCAAAAGTTCTTGAATTAAGTCTGCA 388
DB 102 CAAATAAAGAGTGTGACAGGAAAGATGAGAGTCAAAAGTTCTTGAATTAAGTCTGCA 43
QY 389 GTATTTCTTGTGTATTAACACCGAGTGCACCGAAGT 430
DB 42 GTATTTCTTGTGTATTAACACCGAGTGCACCGAAGT 1
RESULT 5
AA74300
ID AA74300 standard; DNA; 405 BP.
XX
XX AA74300;
XX
XX 04-MAY-2001 (first entry)
XX
XX Canine interleukin-5 coding sequence #1.
XX

KW Dog; interleukin-5; IL-5; allergy; cancer; gene therapy;
KW inflammatory reaction; ds.
XX
XX Canis sp.
XX
XX NC020011049-A2.
XX
XX 15-FEB-2001.
XX
XX 09-AUG-2000; 2000MO-US021651.
XX
XX 10-AUG-1999; 99US-00371615.
XX
XX (IDEXX-) IDEXX LAB INC.
XX
XX Guo H, Lawton R, Mermer B, Aiyappa AP;
DR WPI, 2001-191542/19.
DR P-PSDB; AAB72615.
XX
XX Novel canine interleukin 5 polynucleotide and polypeptides are used for
PT generating antibodies which are useful in treating allergies in dogs.
XX
XX Claim 31; Page 46; 48pp; English.
XX
XX The present invention provides the protein and coding sequences of the
CC canine interleukin-5 (IL-5) protein. This can be used to treat allergies,
CC cancer and inflammatory reactions in dogs. The present sequence is one
CC version of the IL-5 coding sequence shown in the specification
XX
SQ Sequence 405 BP; 131 A; 77 C; 94 G; 103 T; 0 U; 0 Other;
Query Match 64.4%; Score 393; DB 4; Length 405;
Best Local Similarity 100.0%; Pred. No. 1.3e-193;
Matches 393; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
QY 29 ATGAGAAATGCTTGAATTTGAGTTGCTAGCTCTGGGGCTGCTATGTTTCTGCTT 88
DB 1 ATGAGAAATGCTTGAATTTGAGTTGCTAGCTCTGGGGCTGCTATGTTTCTGCTT 60
QY 89 GCTGTAGAAAATCCCATGAATGAGCTGTGGCAGAGACCTTGACATGCTCTCCACTCAT 148
DB 61 GCTGTAGAAAATCCCATGAATGAGCTGTGGCAGAGACCTTGACATGCTCTCCACTCAT 120
QY 149 CGAATCTGGCTGATAGGCGATGGGAACCTGATGATTTCTACTCTGAAAATTAATAATCAC 208
DB 121 CGAATCTGGCTGATAGGCGATGGGAACCTGATGATTTCTACTCTGAAAATTAATAATCAC 180
QY 209 CAACTGTGATTAAGAAGTTTTCAGGGTATAGACATTTGAAGAACCAAACTGCCAC 268
DB 181 CAACTGTGATTAAGAAGTTTTCAGGGTATAGACATTTGAAGAACCAAACTGCCAC 240
QY 269 GGGGAGGCTGTGATTAAGTCTATTCCTTAATTAAGAAGACATAGAGCGC 328
DB 241 GGGGAGGCTGTGATTAAGTCTATTCCTTAATTAAGAAGACATAGAGCGC 300
QY 329 CAAATAAAGAGTGTGACAGGAAAGATGAGAGTCAAAAGTTCTTGAATTAAGTCTGCA 388
DB 301 CAAATAAAGAGTGTGACAGGAAAGATGAGAGTCAAAAGTTCTTGAATTAAGTCTGCA 360
QY 389 GTATTTCTTGTGTATTAACACCGAGTGCACCGAAGT 421
DB 361 GTATTTCTTGTGTATTAACACCGAGTGCACCGAAGT 393
RESULT 6
AA25550
ID AA25550 standard; cDNA; 345 BP.
XX
XX AA25550;
XX
XX 14-MAR-2000 (first entry)
XX

DE Canine mature interleukin-5 (IL-5) cDNA.
 XX Interleukin-5; IL-5; antibody; canine; inhibitor; immune response;
 KM immunoregulation; tumour; cancer; autoimmune disease; vaccine; ss.
 XX
 OS Canis familiaris.
 XX
 PN WO9961618-A2.
 XX
 PD 02-DEC-1999.
 XX
 PF 28-MAY-1999; 99WO-US011942.
 XX
 PR 29-MAY-1998; 98US-0087306P.
 XX
 PA (HESK-) HESKA CORP.
 XX
 PI Sim G, Yang S, Dreitz MJ, Wonderling RS;
 XX
 DR WPI: 2000-072623/06..
 DR P-PSDB; AAY58220.
 XX
 PT Nucleic acids encoding immunoregulatory proteins from cats or dogs,
 PT useful for treating or preventing e.g. tumors or autoimmune disease.
 XX
 PS Claim 1h; Page 226-227; 264pp; English.
 XX
 CC Sequences AA55546-25551 represent cDNA sequences encoding canine
 CC interleukin-5 (IL-5). The invention relates to canine IL-4, canine or
 CC feline Flt-3 ligand, canine or feline CD40, canine or feline CD154 (CD40
 CC ligand), canine IL-5, canine IL-13, feline interferon-alpha (IFN-alpha)
 CC and feline granulocyte macrophage colony-stimulating factor (GM-CSF), and
 CC nucleotides which encode these immunoregulatory proteins. The proteins,
 CC their associated nucleic acids, specific antibodies and inhibitors may be
 CC used as vaccines for therapeutic or prophylactic regulation of an immune
 CC response in animals (particularly cats, dogs, horses and humans). They
 CC may be used to treat autoimmune or infectious diseases including
 CC allergies, tumours, inflammation and graft rejection, and to increase the
 CC response from a co-administered antigen. The nucleotide sequences can
 CC also be used for the recombinant production of a protein, while
 CC nucleotide fragments are useful as probes, as amplification primers and
 CC as sources of inhibitory therapeutics (e.g., antisense oligonucleotides).
 CC The proteins may be used to raise antibodies and to screen for modulators
 CC of activity, while the antibodies may be used in detection, and in drug
 CC targeting
 CC
 XX
 SQ Sequence 345 BP; 120 A; 68 C; 78 G; 79 T; 0 U; 0 Other;
 Query Match 56.6%; Score 345; DB 3; Length 345;
 Best Local Similarity 100.0%; Pred. No. 1.2e-168; Indels 0; Gaps 0;
 Matches 345; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
 QY 86 TTTCGTAGAAAATCCCATGAATAGACTGGTGGCAGAGACCTTGACACTGCTCTCCACT 145
 DB 1 TTTCGTAGAAAATCCCATGAATAGACTGGTGGCAGAGACCTTGACACTGCTCTCCACT 60
 QY 146 CATGAATCTGGCTGATAGGGGATGGGAACTGATGATCTCTAATCCCTGAAAATAAAAT 205
 DB 61 CATGAATCTGGCTGATAGGGGATGGGAACTGATGATCTCTAATCCCTGAAAATAAAAT 120
 QY 206 CACCAACTGTGCATTAAAGAGTTTTCAGGGTATAGACACATTGAAGAACCAACTGCC 265
 DB 121 CACCAACTGTGCATTAAAGAGTTTTCAGGGTATAGACACATTGAAGAACCAACTGCC 180
 QY 266 CACGGGAGGCTGTGATTAATCTATTCGAAACTTGCTTTAATAAAAGAACACATAGAG 325
 DB 181 CACGGGAGGCTGTGATTAATCTATTCGAAACTTGCTTTAATAAAAGAACACATAGAG 240
 QY 326 CGCCAAAAAAGAGTGTGACAGAGAAAGATGAGAGCAAAAGTCTCTAGACTGACTG 385
 DB 241 CGCCAAAAAAGAGTGTGACAGAGAAAGATGAGAGCAAAAGTCTCTAGACTGACTG 300
 QY 386 CAAGTATTTCTGTGATTAACACACGAGTGCACCGGAAAGT 430

DB 301 CAAGTATTTCTGTGATTAACACACGAGTGCACCGGAAAGT 345
 |||||
 RESULT 7
 AA25551/c
 ID AA25551 standard; cDNA; 345 BP.
 XX
 AC AA25551;
 XX
 DT 14-MAR-2000 (first entry)
 XX
 DE Canine mature interleukin-5 (IL-5) cDNA complement.
 XX
 KM Interleukin-5; IL-5; antibody; canine; inhibitor; immune response;
 KM immunoregulation; tumour; cancer; autoimmune disease; vaccine; ss.
 XX
 OS Canis familiaris.
 XX
 PN WO9961618-A2.
 XX
 PD 02-DEC-1999.
 XX
 PF 28-MAY-1999; 99WO-US011942.
 XX
 PR 29-MAY-1998; 98US-0087306P.
 XX
 PA (HESK-) HESKA CORP.
 XX
 PI Sim G, Yang S, Dreitz MJ, Wonderling RS;
 XX
 DR WPI: 2000-072623/06..
 DR P-PSDB; AAY58220.
 XX
 PT Nucleic acids encoding immunoregulatory proteins from cats or dogs,
 PT useful for treating or preventing e.g. tumors or autoimmune disease.
 XX
 PS Claim 1h; Page 228; 264pp; English.
 XX
 CC Sequences AA55546-25551 represent cDNA sequences encoding canine
 CC interleukin-5 (IL-5). The invention relates to canine IL-4, canine or
 CC feline Flt-3 ligand, canine or feline CD40, canine or feline CD154 (CD40
 CC ligand), canine IL-5, canine IL-13, feline interferon-alpha (IFN-alpha)
 CC and feline granulocyte macrophage colony-stimulating factor (GM-CSF), and
 CC nucleotides which encode these immunoregulatory proteins. The proteins,
 CC their associated nucleic acids, specific antibodies and inhibitors may be
 CC used as vaccines for therapeutic or prophylactic regulation of an immune
 CC response in animals (particularly cats, dogs, horses and humans). They
 CC may be used to treat autoimmune or infectious diseases including
 CC allergies, tumours, inflammation and graft rejection, and to increase the
 CC response from a co-administered antigen. The nucleotide sequences can
 CC also be used for the recombinant production of a protein, while
 CC nucleotide fragments are useful as probes, as amplification primers and
 CC as sources of inhibitory therapeutics (e.g., antisense oligonucleotides).
 CC The proteins may be used to raise antibodies and to screen for modulators
 CC of activity, while the antibodies may be used in detection, and in drug
 CC targeting
 CC
 XX
 SQ Sequence 345 BP; 79 A; 78 C; 68 G; 120 T; 0 U; 0 Other;
 Query Match 56.6%; Score 345; DB 3; Length 345;
 Best Local Similarity 100.0%; Pred. No. 1.2e-168; Indels 0; Gaps 0;
 Matches 345; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
 QY 86 TTTCGTAGAAAATCCCATGAATAGACTGGTGGCAGAGACCTTGACACTGCTCTCCACT 145
 DB 345 TTTCGTAGAAAATCCCATGAATAGACTGGTGGCAGAGACCTTGACACTGCTCTCCACT 286
 QY 146 CATGAATCTGGCTGATAGGGGATGGGAACTGATGATCTCTAATCCCTGAAAATAAAAT 205
 DB 285 CATGAATCTGGCTGATAGGGGATGGGAACTGATGATCTCTAATCCCTGAAAATAAAAT 226
 QY 206 CACCAACTGTGCATTAAAGAGTTTTCAGGGTATAGACACATTGAAGAACCAACTGCC 265

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Db 225 CACCACTGTCATTAAAGAAATTTCAGGGTATGACACATTGAAAGAACCAACTGCC 166
Qy 266 CACGGGAGGCTGTGATTAACCTATTCCAAACCTGCTTTAATAAAGAACATAGAG 325
Db 165 CACGGGAGGCTGTGATTAACCTATTCCAAACCTGCTTTAATAAAGAACATAGAG 106
Qy 326 CGCCAAAAAAGGCTGTGACGAGAAAGATGAGAGTGAACAAAGTTCTAGACTCTG 385
Db 105 CGCCAAAAAAGGCTGTGACGAGAAAGATGAGAGTGAACAAAGTTCTAGACTCTG 46
Qy 386 CAAGTATTTCTGTGATTAACACCGAGTGAACCGGAAAGT 430
Db 45 CAAGTATTTCTGTGATTAACACCGAGTGAACCGGAAAGT 1
```

RESULT 8

AAf74306
ID AAF74306 standard; DNA, 393 BP.

AC AAF74306;

DT 04-MAY-2001 (first entry)

DE Canine interleukin-5 coding sequence #3.

XX Dog; interleukin-5; IL-5; allergy; cancer; gene therapy;
XX inflammatory reaction; ds.

OS Canis sp.

PN W0200111049-A2.

PD 15-FEB-2001.

PF 09-AUG-2000; 2000WO-US021651.

PR 10-AUG-1999; 99US-00371615.

PA (IDEX-) IDEXX LAB INC.

PI Guo H, Lawton R, Mermer B, Aliyappa AP;

PS WPI; 2001-191542/19.

PT Novel canine interleukin 5 polynucleotide and polypeptides are used for
XX generating antibodies which are useful in treating allergies in dogs.

PS Claim 1; Page 35; 48pp; English.

XX The present invention provides the protein and coding sequences of the
XX canine interleukin-5 (IL-5) protein. This can be used to treat allergies,
XX cancer and inflammatory reactions in dogs. The present sequence is one
XX version of the IL-5 coding sequence shown in the specification

SQ Sequence 393 BP; 128 A; 82 C; 86 G; 97 T; 0 U; 0 Other;

Query Match 44.3%; Score 270; DB 4; Length 393;

Best Local Similarity 100.0%; Pred. No. 1,2e-129; Mismatches 0; Gaps 0;

Matches 270; Conservative 0; Indels 0; Gaps 0;

Qy 131 AACTGCTCTCCACTCATGCACTTGCTGTATGAGCGAAGAACTGATGATTCCTACT 190

Db 1 ACACGTGCTCTCCACTCATGCACTTGCTGTATGAGCGAAGAACTGATGATTCCTACT 60

Qy 191 CCTGAATAATAAATCCCACTGTCATTAAGAAGTTTTCAGGGATATGACACATTG 250

Db 61 CCTGAATAATAAATCCCACTGTCATTAAGAAGTTTTCAGGGATATGACACATTG 120

Qy 251 AAGAACAACACTGCGCAACGGGAGGCTGTGATTAACCTATTCAAAACCTGCTTTAATA 310

Db 121 AAGAACAACACTGCGCAACGGGAGGCTGTGATTAACCTATTCAAAACCTGCTTTAATA 180

Qy 311 AAGAACAACACTGAGCGCCCAAAAAAAGTGTGACGAGAGAAAGATGAGAGTGACAAAG 370

Db 181 AAGAACAACACTGAGCGCCCAAAAAAAGTGTGACGAGAGAAAGATGAGAGTGACAAAG 240

Qy 371 TTCCTAGACTGACGCAAGATTTCTTGGT 400

Db 241 TTCCTAGACTGACGCAAGATTTCTTGGT 270

RESULT 9

AAf74305
ID AAF74305 standard; DNA, 252 BP.

AC AAF74305;

DT 04-MAY-2001 (first entry)

DE Canine interleukin-5 coding sequence #2.

XX Dog; interleukin-5; IL-5; allergy; cancer; gene therapy;
XX inflammatory reaction; ds.

OS Canis sp.

PN W0200111049-A2.

PD 15-FEB-2001.

PF 09-AUG-2000; 2000WO-US021651.

PR 10-AUG-1999; 99US-00371615.

PA (IDEX-) IDEXX LAB INC.

PI Guo H, Lawton R, Mermer B, Aliyappa AP;

PS WPI; 2001-191542/19.

DR P-PSDB; AAB72616.

PT Novel canine interleukin 5 polynucleotide and polypeptides are used for
XX generating antibodies which are useful in treating allergies in dogs.

PS Example 1; Fig 1; 48pp; English.

XX The present invention provides the protein and coding sequences of the
XX canine interleukin-5 (IL-5) protein. This can be used to treat allergies,
XX cancer and inflammatory reactions in dogs. The present sequence is one
XX version of the IL-5 coding sequence shown in the specification

SQ Sequence 252 BP; 69 A; 54 C; 60 G; 69 T; 0 U; 0 Other;

Query Match 41.3%; Score 252; DB 4; Length 252;

Best Local Similarity 100.0%; Pred. No. 2,7e-120; Mismatches 0; Indels 0; Gaps 0;

Matches 252; Conservative 0; Indels 0; Gaps 0;

Qy 29 ATGAGAAATGCTTGAATTTGAGTTGCTAGCTCTTGAGGCTGCTGATGTTTCTGCTTT 88

Db 1 ATGAGAAATGCTTGAATTTGAGTTGCTAGCTCTTGAGGCTGCTGATGTTTCTGCTTT 60

Qy 89 GCTGTAGAAATCCCACTGATTAAGCTGTGCGAGACCTTGACACTGCTCCACTCAT 148

Db 61 GCTGTAGAAATCCCACTGATTAAGCTGTGCGAGACCTTGACACTGCTCCACTCAT 120

Qy 149 CGAAGTGTGCTGATGAGCGAATGGAACCTGATGATTCCTACTGCTGAAAATAAATAC 208

Db 121 CGAAGTGTGCTGATGAGCGAATGGAACCTGATGATTCCTACTGCTGAAAATAAATAC 180

Qy 209 CAACGTGCTTAAGAAGTTTTCAGGGATATGACACATTTGAAGAACCAACTGCCAC 268

Db 181 CAACGTGCTTAAGAAGTTTTCAGGGATATGACACATTTGAAGAACCAACTGCCAC 240

Qy 269 GGGAGGCTGTG 280

CC induces production of gamma-interferon by, and proliferation of, T and NK
 CC cells and increases the (non-)specific cytolytic lymphocyte response. The
 CC genetic constructs can also be used for in vitro production of IL-5 or -
 CC 12. (Updated on 17-OCT-2003 to standardise OS field)

XX
 SQ Sequence 520 BP; 166 A; 99 C; 124 G; 131 T; 0 U; 0 Other;

Query Match 7.0%; Score 43; DB 2; Length 520;
 Best Local Similarity 100.0%; Pred. No. 1.3e-11;
 Matches 43; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 102 CCATGAATAGACTGTGGCAGAGACCTTGACACTGCTCTCCAC 144
 |||||
 Db 113 CCAATGAATAGACTGTGGCAGAGACCTTGACACTGCTCTCCAC 155

RESULT 12

AAZ44265
 ID AAZ44265 standard; DNA; 838 BP.

AC AAZ44265;

XX
 DT 31-MAR-2000 (first entry)

XX Porcine IL-5 DNA.

DE Pig; vaccine; cysticercosis; protective antigen; cC1; cC3; cC4;
 KM tenial cysticercus; gamma interferon; IFN-gamma; interleukin 5; IL-5; ss.
 XX

OS Sus scrofa.

XX CNI231339-A.

XX
 PD 13-OCT-1999.

XX 29-JAN-1999; 99CN-00113447.

XX 29-JAN-1999; 99CN-00113447.

XX (UYTW-) UNIV NO 2 MILITARY MEDICAL PLA.

PI Sun S, Dai J;

XX WPI; 2000-087904/08.

XX Nucleic acid vaccine for cysticercosis co-contracted by human and pig.

PS Claim 3; Page 9; 21pp; Chinese.

XX This invention describes a novel nucleic acid vaccine for preventing and
 CC curing human and pork cysticercosis. The invention involves the formation
 CC of a eukaryotic expression plasmid from fusion transcript expression unit
 CC consisting of three protective antigen genes (CC1, CC3 and CC4) of pig
 CC tenial cysticercus and coexpression unit of related cell factor gamma
 CC interferon (IFN-gamma) and pork interleukin 5 (IL-5) genes. The
 CC production and purification process of said nucleic acid vaccine is
 CC simple and convenient, the physical and chemical properties of the
 CC vaccine are stable, and the vaccine is easy to store and transport, and
 CC possesses effective immunological protective function for human and pig
 CC cysticercosis. This sequence represents the pig IL-5 gene used in the
 CC method of the invention

XX Sequence 838 BP; 280 A; 148 C; 171 G; 239 T; 0 U; 0 Other;

Query Match 6.7%; Score 41; DB 3; Length 838;
 Best Local Similarity 100.0%; Pred. No. 1.5e-10;
 Matches 41; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 45 ATTGAGTTGCTAGCTCTTGAGGCTGCTATGTTCTGCC 85
 |||||
 Db 61 ATTGAGTTGCTAGCTCTTGAGGCTGCTATGTTCTGCC 101

RESULT 13
 ID AAQ57191
 AAQ57191 standard; mRNA; 27 BP.

XX
 AC AAQ57191;

XX 25-MAR-2003 (revised)

DT 26-JUL-1994 (first entry)

XX Enzymatic RNA molecule IL-5 mRNA target sequence.

DE Interleukin-5; specific; cleavage; target RNA; protein; expression;
 KM inhibitor; inhibitor; ribozyme; treatment; prophylaxis; prevention;
 KM psoriasis; asthma; inflammatory diseases; restenosis;
 KM cardiovascular condition; hypertension; arthritis; ss.
 XX

OS Synthetic.

XX WO9402595-A1.

XX 03-FEB-1994.

XX 02-JUL-1993; 93WO-US006316.

XX 17-JUL-1992; 92US-00916763.

XX 07-DEC-1992; 92US-00987132.

XX 07-DEC-1992; 92US-00989848.

XX 19-JAN-1993; 93US-00008895.

XX (RIBO-) RIBOZYME PHARM INC.

XX Sullivan SM, Draper KG;

XX WPI; 1994-048853/06.

XX Enzymatic RNA molecules which cleave mRNA - used to treat or prevent
 PT inflammatory, arthritic, stenotic or cardiovascular diseases or
 PT conditions.

XX Claim 3; Page 17; 65pp; English.

XX This is an IL-5 mRNA target sequence (nucleotide no. 61) of an enzymatic
 CC RNA molecule (ribozyme) which cleaves mRNA associated with the
 CC development or maintenance of a psoriatic or asthmatic condition. The
 CC concn. of the ribozyme necessary to effect a therapeutic treatment is
 CC lower than that of an antisense oligonucleotide and the specificity of
 CC action is higher. (Updated on 25-MAR-2003 to correct PN field.)

XX Sequence 27 BP; 4 A; 4 C; 8 G; 11 T; 0 U; 0 Other;

Query Match 3.6%; Score 22; DB 2; Length 27;
 Best Local Similarity 100.0%; Pred. No. 1;
 Matches 22; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 45 ATTGAGTTGCTAGCTCTTGAGGCTGCTATGTTCTGCC 66
 |||||
 Db 1 ATTGAGTTGCTAGCTCTTGAGGCTGCTATGTTCTGCC 22

RESULT 14

AAZ55592/C
 ID AAZ55592 standard; DNA; 32 BP.

XX
 AC AAZ55592;

XX 14-MAR-2000 (first entry)

XX Canine IL-5 antisense PCR primer, SEQ ID NO:138.

DE Interleukin, IL-4, IL-5; IL-13; Flt-3 ligand; CD40; CD40 ligand; CD154;
 KM interferon-alpha; IFN-alpha; GM-CSF; antibody; canine; feline;
 KM granulocyte macrophage colony-stimulating factor; inhibitor;

[illegible]

XX colon cancer; breast cancer; lung cancer; pancreatic cancer;
 KW hepatocellular carcinoma; kidney cancer; melanoma; hepatic metastasis;
 KM prostate cancer; ss.

OS Synthetic.
 PN MO9913886-A1.
 XX
 XX
 PD 25-MAR-1999.
 PF 17-SEP-1998; 98WO-US019419.
 PR 17-SEP-1997; 97US-0059160P.
 PR 09-JUN-1998; 98US-00093972.
 XX
 PA (UYEC-) UNIV EAST CAROLINA.
 P1 Myce JW;
 DR WPI, 1999-229400/19.
 XX
 PT New antisense oligonucleotides used in treatment of, e.g. pulmonary
 XX vasoconstriction.
 PS
 PS Disclosure; Page 49; 120pp; English.

CC The specification describes antisense oligonucleotides (AA52869-X55271)
 CC directed against at least 2 mRNAs selected from target genes, coding and
 CC non-coding regions of RNAs corresponding to target genes, gene initiation
 CC codons, genomic flanking regions, intron-exon borders, the 5'-end, the 3'
 CC -end and the junction between coding and non-coding regions and all
 CC segments of RNAs encoding proteins associated with one or more diseases,
 CC conditions or mixtures. The antisense oligonucleotides may be derived
 CC from sequences AA55272-74. These multiple target oligonucleotides
 CC (specifically AA55180-271) can be used for the antisense treatment of
 CC diseases and conditions. Typical diseases and conditions are those
 CC associated with impaired respiration and inflammation, including lung
 CC diseases, pulmonary vasoconstriction, inflammation, allergic rhinitis,
 CC acute asthma, allergies, asthma, impeded respiration, respiratory
 CC distress syndrome, pain, cystic fibrosis, pulmonary hypertension,
 CC pulmonary vasoconstriction, emphysema, chronic obstructive pulmonary
 CC disease (COPD), and cancers such as leukemias, lymphomas, carcinomas e.g.
 CC colon cancer, breast cancer, lung cancer, pancreatic cancer,
 CC hepatocellular carcinoma, kidney cancer, melanoma, hepatic metastases, as
 CC well as all types of cancers which may metastasize or have metastasized
 CC to the lungs, including breast and prostate cancer

XX
 SQ Sequence 89 BP; 25 A; 20 C; 25 G; 18 T; 0 U; 1 Other:

Query Match		3.6%; Score 22; DB 2; Length 89;
Best Local Similarity	100.0%; Pred. No. 1.1;	
Matches	22; Conservative 0; Mismatches 0; Indels 0; Gaps 0;	

```

OY      45 ATTGAGTTTCTACTCTTGCG 66
        |||||
DB       61 ATTGAGTTTCTACTCTTGCG 40
  
```

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Tue Aug 9 08:32:37 2005

GenCore version 5.1.6
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OM nucleic - nucleic search, using sw model

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(without alignments)
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- 23: /cgn2_6/ptodata/1/pubpna/US11A_PUBCOMB.seq:*
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Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

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2	610	100.0	610	9	US-09-755-633-6
3	610	100.0	610	14	US-10-218-654-80
4	610	100.0	610	14	US-10-218-654-82
5	610	100.0	610	15	US-10-262-439-80
6	610	100.0	610	15	US-10-262-439-82
7	610	100.0	610	19	US-10-787-382-4

C	8	610	100.0	610	19	US-10-787-382-6	Sequence 6, Appli
C	9	402	65.9	402	9	US-09-755-633-7	Sequence 7, Appli
C	10	402	65.9	402	9	US-09-755-633-8	Sequence 8, Appli
C	11	402	65.9	402	14	US-10-218-654-83	Sequence 83, Appli
C	12	402	65.9	402	14	US-10-218-654-84	Sequence 84, Appli
C	13	402	65.9	402	15	US-10-262-439-83	Sequence 83, Appli
C	14	402	65.9	402	15	US-10-262-439-84	Sequence 84, Appli
C	15	402	65.9	402	19	US-10-787-382-7	Sequence 7, Appli
C	16	402	65.9	402	19	US-10-787-382-8	Sequence 8, Appli
C	17	345	56.6	345	9	US-09-755-633-9	Sequence 9, Appli
C	18	345	56.6	345	9	US-09-755-633-11	Sequence 11, Appli
C	19	345	56.6	345	14	US-10-218-654-85	Sequence 85, Appli
C	20	345	56.6	345	14	US-10-218-654-87	Sequence 87, Appli
C	21	345	56.6	345	15	US-10-262-439-85	Sequence 85, Appli
C	22	345	56.6	345	15	US-10-262-439-87	Sequence 87, Appli
C	23	345	56.6	345	19	US-10-787-382-9	Sequence 9, Appli
C	24	345	56.6	345	19	US-10-787-382-11	Sequence 11, Appli
C	25	299	49.0	671	19	US-09-755-633-21	Sequence 21, Appli
C	26	170	27.9	1658	9	US-10-787-382-21	Sequence 21, Appli
C	27	170	27.9	1658	9	US-10-787-382-18	Sequence 18, Appli
C	28	170	27.9	1658	9	US-10-787-382-19	Sequence 19, Appli
C	29	139	22.8	1658	9	US-09-755-633-19	Sequence 19, Appli
C	30	139	22.8	1658	19	US-10-787-382-19	Sequence 19, Appli
C	31	22	3.6	32	9	US-09-755-633-13	Sequence 13, Appli
C	32	22	3.6	32	14	US-10-218-654-138	Sequence 138, App
C	33	22	3.6	32	15	US-10-262-439-138	Sequence 138, App
C	34	22	3.6	32	19	US-10-787-382-13	Sequence 13, Appli
C	35	22	3.6	459	22	US-10-880-101A-85	Sequence 85, Appli
C	36	22	3.6	816	17	US-10-191-997-90	Sequence 17, Appli
C	37	22	3.6	816	18	US-10-641-643-1236	Sequence 1236, Ap
C	38	22	3.6	816	21	US-10-929-182-4	Sequence 21, Appli
C	39	22	3.6	816	22	US-10-880-101A-87	Sequence 87, Appli
C	40	22	3.6	3230	19	US-09-800-629A-78	Sequence 78, Appli
C	41	22	3.6	3230	19	US-10-679-532-78	Sequence 78, Appli
C	42	22	3.6	3230	22	US-10-880-101A-89	Sequence 89, Appli
C	43	22	3.6	3241	22	US-10-880-101A-91	Sequence 91, Appli
C	44	21	3.4	26	9	US-09-789-529-81	Sequence 81, Appli
C	45	21	3.4	36	9	US-09-755-633-12	Sequence 12, Appli

ALIGNMENTS

RESULT 1
US-09-755-633-4
; Sequence 4, Application US/09755633
; Patent No. US20020127200A1
; GENERAL INFORMATION:
; APPLICANT: Yang, Shunlin
; APPLICANT: McCall, Catherine A.
; TITLE OF INVENTION: CANINE AND FELINE IMMUNOREGULATORY PROTEINS, NUCLEIC
; TITLE OF INVENTION: ACID MOLECULES, AND USES THEREOF
; FILE REFERENCE: IM-2-C1-C1
; CURRENT APPLICATION NUMBER: US/09/755, 633
; PRIOR FILING DATE: 2001-01-05
; PRIOR APPLICATION NUMBER: 09/322,409
; PRIOR FILING DATE: 1999-05-28
; PRIOR APPLICATION NUMBER: 60/087,306
; PRIOR FILING DATE: 1998-05-29
; NUMBER OF SEQ ID NOS: 21
; SOFTWARE: PatentIn Ver. 2.1
; SEQ ID NO: 4
; LENGTH: 610
; TYPE: DNA
; ORGANISM: Canis familiaris
; FEATURE:
; NAME/KEY: CDS
; LOCATION: (29)..(430)
US-09-755-633-4
Query Match 100.0%; Score 610; DB 9; Length 610;
Best Local Similarity 100.0%; Pred. No. 0;

Matches 610; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

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QY 1 CAAGGCAAAACACGTAACATTTGAGAGCTATGAGATGCTTCTGAATTTGAGTTGCTAGC 60
D 1 CAAGGCAAAACACGTAACATTTGAGAGCTATGAGATGCTTCTGAATTTGAGTTGCTAGC 60
QY 61 TCTTGGGGCTGCTATGTTTCTGCTTTGCTGTGAGAAAATCCATGAAATAGACTGTGGC 120
D 61 TCTTGGGGCTGCTATGTTTCTGCTTTGCTGTGAGAAAATCCATGAAATAGACTGTGGC 120
QY 121 AGAAGACCTTGACATGCTGCTCCATCGAATCTGCTGATAGGCAATGGGAACCTGAT 180
D 121 AGAAGACCTTGACATGCTGCTCCATCGAATCTGCTGATAGGCAATGGGAACCTGAT 180
QY 181 GATTCTACTCTCGTGAATAAATAATCAACCACTGTGCTTAAAGAGTTTTCAGGGTAT 240
D 181 GATTCTACTCTCGTGAATAAATAATCAACCACTGTGCTTAAAGAGTTTTCAGGGTAT 240
QY 241 AGACACATTTGAAGAACCAACTGCCACGGGAGGCTGTGATTAATCTATTCAAAACCTT 300
D 241 AGACACATTTGAAGAACCAACTGCCACGGGAGGCTGTGATTAATCTATTCAAAACCTT 300
QY 301 GTCTTTAATAAAGAACATAGAGCGCCAAAATAAAGTGTCAGAGGAAGAATGAGAG 360
D 301 GTCTTTAATAAAGAACATAGAGCGCCAAAATAAAGTGTCAGAGGAAGAATGAGAG 360
QY 361 AGTGACAAAGTTCTCTAGACTACCTGCAAGTATTTCTTGCTGTAATTAACACCGAGTGAC 420
D 361 AGTGACAAAGTTCTCTAGACTACCTGCAAGTATTTCTTGCTGTAATTAACACCGAGTGAC 420
QY 421 ACCGGAAGTTGAGAACCAACCGGCTTATTTGAGTGAAGATTTTGGAGAAATGGTTT 480
D 421 ACCGGAAGTTGAGAACCAACCGGCTTATTTGAGTGAAGATTTTGGAGAAATGGTTT 480
QY 481 TTTGGCGATGAGAAATGAGGGCCAAACCAAGTAGGACTTAATGAGCAATTAATAGC 540
D 481 TTTGGCGATGAGAAATGAGGGCCAAACCAAGTAGGACTTAATGAGCAATTAATAGC 540
QY 541 TTCAAGAGCAAAAGTAATATTTTCAAGGCACTCTACTACTTATCACTTCAACAGATGAAA 600
D 541 TTCAAGAGCAAAAGTAATATTTTCAAGGCACTCTACTACTTATCACTTCAACAGATGAAA 600
QY 601 TATATTTGAG 610
D 601 TATATTTGAG 610
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RESULT 2

US-09-755-633-6/c
Sequence 6, Application US/09755633
Patent No. US20020127200A1
GENERAL INFORMATION:
APPLICANT: Yang, Shumin
APPLICANT: McCall, Catherine A.
APPLICANT: Weber, Eric R.
TITLE OF INVENTION: CANINE AND FELINE IMMUNOREGULATORY PROTEINS, NUCLEIC
FILE REFERENCE: IM-2-C1-C1
CURRENT APPLICATION NUMBER: US/09/755,633
CURRENT FILING DATE: 2001-01-05
PRIOR APPLICATION NUMBER: 09/322,409
PRIOR FILING DATE: 1999-05-28
PRIOR APPLICATION NUMBER: 60/087,306
PRIOR FILING DATE: 1998-05-29
NUMBER OF SEQ ID NOS: 21
SOFTWARE: PatentIn Ver. 2.1
SEQ ID NO 6
LENGTH: 610
TYPE: DNA
ORGANISM: Canis familiaris
US-09-755-633-6

Query Match 100.0%; Score 610; DB 9; Length 610;

Best Local Similarity 100.0%; Pred. No. 0;
Matches 610; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

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QY 1 CAAGGCAAAACACGTAACATTTGAGAGCTATGAGATGCTTCTGAATTTGAGTTGCTAGC 60
D 610 CAAGGCAAAACACGTAACATTTGAGAGCTATGAGATGCTTCTGAATTTGAGTTGCTAGC 551
QY 61 TCTTGGGGCTGCTATGTTTCTGCTTTGCTGTGAGAAAATCCATGAAATAGACTGTGGC 120
D 550 TCTTGGGGCTGCTATGTTTCTGCTTTGCTGTGAGAAAATCCATGAAATAGACTGTGGC 491
QY 121 AGAAGACCTTGACATGCTGCTCCATCGAATCTGCTGATAGGCAATGGGAACCTGAT 180
D 490 AGAAGACCTTGACATGCTGCTCCATCGAATCTGCTGATAGGCAATGGGAACCTGAT 431
QY 181 GATTCTACTCTCGTGAATAAATAATCAACCACTGTGCTTAAAGAGTTTTCAGGGTAT 240
D 430 GATTCTACTCTCGTGAATAAATAATCAACCACTGTGCTTAAAGAGTTTTCAGGGTAT 371
QY 241 AGACACATTTGAAGAACCAACTGCCACGGGAGGCTGTGATTAATCTATTCAAAACCTT 300
D 370 AGACACATTTGAAGAACCAACTGCCACGGGAGGCTGTGATTAATCTATTCAAAACCTT 311
QY 301 GTCTTTAATAAAGAACATAGAGCGCCAAAATAAAGTGTCAGAGGAAGAATGAGAG 360
D 310 GTCTTTAATAAAGAACATAGAGCGCCAAAATAAAGTGTCAGAGGAAGAATGAGAG 351
QY 361 AGTGACAAAGTTCTCTAGACTACCTGCAAGTATTTCTTGCTGTAATTAACACCGAGTGAC 420
D 250 AGTGACAAAGTTCTCTAGACTACCTGCAAGTATTTCTTGCTGTAATTAACACCGAGTGAC 191
QY 421 ACCGGAAGTTGAGAACCAACCGGCTTATTTGAGTGAAGATTTTGGAGAAATGGTTT 480
D 190 ACCGGAAGTTGAGAACCAACCGGCTTATTTGAGTGAAGATTTTGGAGAAATGGTTT 131
QY 481 TTTGGCGATGAGAAATGAGGGCCAAACCAAGTAGGACTTAATGAGCAATTAATAGC 540
D 130 TTTGGCGATGAGAAATGAGGGCCAAACCAAGTAGGACTTAATGAGCAATTAATAGC 71
QY 541 TTCAAGAGCAAAAGTAATATTTTCAAGGCACTCTACTACTTATCACTTCAACAGATGAAA 600
D 70 TTCAAGAGCAAAAGTAATATTTTCAAGGCACTCTACTACTTATCACTTCAACAGATGAAA 11
QY 601 TATATTTGAG 610
D 10 TATATTTGAG 1
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RESULT 3

US-10-218-654-80
Sequence 80, Application US/10218654
Publication No. US20030099609A1
GENERAL INFORMATION:
APPLICANT: Sim, Gek-kee
APPLICANT: Yang, Shumin
APPLICANT: Drelitz, Matthew J.
TITLE OF INVENTION: CANINE AND FELINE IMMUNOREGULATORY PROTEINS, NUCLEIC
FILE REFERENCE: IM-2-C1
CURRENT APPLICATION NUMBER: US/10/218,654
CURRENT FILING DATE: 2002-08-13
PRIOR APPLICATION NUMBER: US/09/322,409
PRIOR FILING DATE: 1999-05-28
PRIOR APPLICATION NUMBER: 60/087,306
PRIOR FILING DATE: 1998-05-29
NUMBER OF SEQ ID NOS: 154
SOFTWARE: PatentIn Ver. 2.0
SEQ ID NO 80
LENGTH: 610
TYPE: DNA
ORGANISM: Canis familiaris
FEATURE:

NAME/KEY: CDS
LOCATION: (29) .. (430)
US-10-218-654-80

Query Match 100.0%; Score 610; DB 14; Length 610;
Best Local Similarity 100.0%; Pred. No. 0;
Matches 610; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

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Qy 1 CAAGGCAAAACATGAACTTTGAGAGCTATGAGAAATGTTTGAATTTGAGTTGCTTACG 60
Db 1 CAAGGCAAAACATGAACTTTGAGAGCTATGAGAAATGTTTGAATTTGAGTTGCTTACG 60
Qy 61 TCTTGGGGCTGCTATGTTTCTGCTTGTGTGAAATCCCAATAGATAGTGTGCG 120
Db 61 TCTTGGGGCTGCTATGTTTCTGCTTGTGTGAAATCCCAATAGATAGTGTGCG 120
Qy 121 AGAGACCTTGACATGCTCTCTCATGAACTTTGCTGATAGGCGATGGAACCTGAT 180
Db 121 AGAGACCTTGACATGCTCTCTCATGAACTTTGCTGATAGGCGATGGAACCTGAT 180
Qy 181 GATTCTTACTCTGAAATTAATAATCAACATGTCATTAAGAAATTTTCAAGGAT 240
Db 181 GATTCTTACTCTGAAATTAATAATCAACATGTCATTAAGAAATTTTCAAGGAT 240
Qy 241 AGACACATTTGAAGAACCAATGCGCCACGGGAGGCTGTGATTAATTCATAACTT 300
Db 241 AGACACATTTGAAGAACCAATGCGCCACGGGAGGCTGTGATTAATTCATAACTT 300
Qy 301 GTCTTTATTAATAAGACATATAGAGCGCCAAAAAAAGTGTGACGAGAAAGATGAG 360
Db 301 GTCTTTATTAATAAGACATATAGAGCGCCAAAAAAAGTGTGACGAGAAAGATGAG 360
Qy 361 AGTACAAAGTTCTTACACTCTGCAAGTATTTCTTGATTAATAACACCGATGAG 420
Db 361 AGTACAAAGTTCTTACACTCTGCAAGTATTTCTTGATTAATAACACCGATGAG 420
Qy 421 ACCGGAAGTTGAGAACCAACCGGCTTATTTGATGAGAAATTTTGAGAAATGTTT 480
Db 421 ACCGGAAGTTGAGAACCAACCGGCTTATTTGATGAGAAATTTTGAGAAATGTTT 480
Qy 481 TTTGGCGATGAGAAATGAGGCGCAACCAAGTAGGCACTTAATGCGCATTAAC 540
Db 481 TTTGGCGATGAGAAATGAGGCGCAACCAAGTAGGCACTTAATGCGCATTAAC 540
Qy 541 TTTGAGAGCAAAATTAATTTTCAAGGATCTTACTTATCACTTACACAGATGAA 600
Db 541 TTTGAGAGCAAAATTAATTTTCAAGGATCTTACTTATCACTTACACAGATGAA 600
Qy 601 TATATTTGAG 610
Db 601 TATATTTGAG 610
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RESULT 4

US-10-218-654-82/c
Sequence 82, Application US/10218654
Publication No. US2003009609A1
GENERAL INFORMATION:
APPLICANT: Sim, Gek-Kee
APPLICANT: Yang, Shumin
APPLICANT: Dreitz, Matthew J.
APPLICANT: Wonderling, Ramani S.
TITLE OF INVENTION: CANINE AND FELINE IMMUNOREGULATORY PROTEINS, NUCLEIC
FILE REFERENCE: IM-2-C1
CURRENT APPLICATION NUMBER: US/10/218,654
CURRENT FILING DATE: 2002-08-13
PRIOR APPLICATION NUMBER: US/09/322,409
PRIOR FILING DATE: 1999-05-28
PRIOR APPLICATION NUMBER: 60/087,306
PRIOR FILING DATE: 1998-05-29
NUMBER OF SEQ ID NOS: 154
SOFTWARE: Patent In Ver. 2.0

SEQ ID NO 82
LENGTH: 610
TYPE: DNA
ORGANISM: Canis familiaris
US-10-218-654-82

Query Match 100.0%; Score 610; DB 14; Length 610;
Best Local Similarity 100.0%; Pred. No. 0;
Matches 610; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

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Qy 1 CAAGGCAAAACATGAACTTTGAGAGCTATGAGAAATGTTTGAATTTGAGTTGCTTACG 60
Db 610 CAAGGCAAAACATGAACTTTGAGAGCTATGAGAAATGTTTGAATTTGAGTTGCTTACG 551
Qy 61 TCTTGGGGCTGCTATGTTTCTGCTTGTGTGAAATCCCAATAGATAGTGTGCG 120
Db 61 TCTTGGGGCTGCTATGTTTCTGCTTGTGTGAAATCCCAATAGATAGTGTGCG 120
Qy 550 TCTTGGGGCTGCTATGTTTCTGCTTGTGTGAAATCCCAATAGATAGTGTGCG 491
Db 550 TCTTGGGGCTGCTATGTTTCTGCTTGTGTGAAATCCCAATAGATAGTGTGCG 491
Qy 121 AGAGACCTTGACATGCTCTCTCATGAACTTTGCTGATAGGCGATGGAACCTGAT 180
Db 490 AGAGACCTTGACATGCTCTCTCATGAACTTTGCTGATAGGCGATGGAACCTGAT 431
Qy 181 GATTCTTACTCTGAAATTAATAATCAACATGTCATTAAGAAATTTTCAAGGAT 240
Db 430 GATTCTTACTCTGAAATTAATAATCAACATGTCATTAAGAAATTTTCAAGGAT 371
Qy 241 AGACACATTTGAAGAACCAATGCGCCACGGGAGGCTGTGATTAATTCATAACTT 300
Db 370 AGACACATTTGAAGAACCAATGCGCCACGGGAGGCTGTGATTAATTCATAACTT 311
Qy 301 GTCTTTATTAATAAGACATATAGAGCGCCAAAAAAAGTGTGACGAGAAAGATGAG 360
Db 310 GTCTTTATTAATAAGACATATAGAGCGCCAAAAAAAGTGTGACGAGAAAGATGAG 251
Qy 361 AGTACAAAGTTCTTACACTCTGCAAGTATTTCTTGATTAATAACACCGATGAG 420
Db 250 AGTACAAAGTTCTTACACTCTGCAAGTATTTCTTGATTAATAACACCGATGAG 191
Qy 421 ACCGGAAGTTGAGAACCAACCGGCTTATTTGATGAGAAATTTTGAGAAATGTTT 480
Db 421 ACCGGAAGTTGAGAACCAACCGGCTTATTTGATGAGAAATTTTGAGAAATGTTT 131
Qy 481 TTTGGCGATGAGAAATGAGGCGCAACCAAGTAGGCACTTAATGCGCATTAAC 540
Db 130 TTTGGCGATGAGAAATGAGGCGCAACCAAGTAGGCACTTAATGCGCATTAAC 71
Qy 541 TTTGAGAGCAAAATTAATTTTCAAGGATCTTACTTATCACTTACACAGATGAA 600
Db 70 TTTGAGAGCAAAATTAATTTTCAAGGATCTTACTTATCACTTACACAGATGAA 11
Qy 601 TATATTTGAG 610
Db 10 TATATTTGAG 1
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RESULT 5

US-10-262-439-80
Sequence 80, Application US/10262439
Publication No. US20030143196A1
GENERAL INFORMATION:
APPLICANT: Sim, Gek-Kee
APPLICANT: Yang, Shumin
APPLICANT: Dreitz, Matthew J.
APPLICANT: Wonderling, Ramani S.
TITLE OF INVENTION: CANINE AND FELINE IMMUNOREGULATORY PROTEINS, NUCLEIC
FILE REFERENCE: IM-2-C2
CURRENT APPLICATION NUMBER: US/10/262,439
CURRENT FILING DATE: 2002-09-30
PRIOR APPLICATION NUMBER: US/09/451,527
PRIOR FILING DATE: 1999-12-01
PRIOR APPLICATION NUMBER: 09/322,409
PRIOR FILING DATE: 1999-05-28

; PRIOR APPLICATION NUMBER: 60/087,306
; PRIOR FILING DATE: 1998-05-29
; NUMBER OF SEQ ID NOS: 174
; SOFTWARE: PatentIn Ver. 2.0
; SEQ ID NO 80
; LENGTH: 610
; TYPE: DNA
; ORGANISM: Canis familiaris
; FEATURE:
; NAME/KEY: CDS
; LOCATION: (29)..(430)
US-10-262-439-80

Query Match 100.0%; Score 610; DB 15; Length 610;
Best Local Similarity 100.0%; Pred. No. 0;
Matches 610; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 CAAGGCAAAACATGAACTTTCAGAGCTATGAGAAATGCTTGTGAATTTGAGTTGCTAGC 60
Db 1 CAAGGCAAAACATGAACTTTCAGAGCTATGAGAAATGCTTGTGAATTTGAGTTGCTAGC 60
QY 61 TCTTGGGCGCTGCTATGTTTCTGCTTGTGCTGTAAGAAATCCCATGAATGACTGTGGC 120
Db 61 TCTTGGGCGCTGCTATGTTTCTGCTTGTGCTGTAAGAAATCCCATGAATGACTGTGGC 120
QY 121 AGAGACCTTGACACTGCTCTTCACATCGAATCTTGCGCTGATAGGCGATGGGAACTGAT 180
Db 121 AGAGACCTTGACACTGCTCTTCACATCGAATCTTGCGCTGATAGGCGATGGGAACTGAT 180
QY 181 GATTCCCTACTCTGAAATATATAATCACTGCTGATTAAGAAATTTTTCAGGGTAT 240
Db 181 GATTCCCTACTCTGAAATATATAATCACTGCTGATTAAGAAATTTTTCAGGGTAT 240
QY 241 AGACACATTTGAAGAACCAACTGCGCCACGGGAGGCTGTGATTAACCTATCCAAACTT 300
Db 241 AGACACATTTGAAGAACCAACTGCGCCACGGGAGGCTGTGATTAACCTATCCAAACTT 300
QY 301 GTCTTTAATAAAGAACATAGAGCGCCAAAAAAGGTGTGCAGAGAAAGATGAG 360
Db 301 GTCTTTAATAAAGAACATAGAGCGCCAAAAAAGGTGTGCAGAGAAAGATGAG 360
QY 361 AGTGACAAAGTTCTTAAGACTACCTGCAAGTATTTCTTGATTAATAACCCGAGTGAC 420
Db 361 AGTGACAAAGTTCTTAAGACTACCTGCAAGTATTTCTTGATTAATAACCCGAGTGAC 420
QY 421 ACCGGAAGTTGAGAACAAACCGGCTTATGTAGTGAAGATTTTGGAGAAAGATGTTT 480
Db 421 ACCGGAAGTTGAGAACAAACCGGCTTATGTAGTGAAGATTTTGGAGAAAGATGTTT 480
QY 481 TTTGGCGATGAGAAATGAGGCGCAACCAAGTAGGGAATTATGGCCAGTATTAAGC 540
Db 481 TTTGGCGATGAGAAATGAGGCGCAACCAAGTAGGGAATTATGGCCAGTATTAAGC 540
QY 541 TTTCAGACAAAGTAATATTTTCAGGCACTCTACTTATCACTTCAACAGATGAAA 600
Db 541 TTTCAGACAAAGTAATATTTTCAGGCACTCTACTTATCACTTCAACAGATGAAA 600
QY 601 TATATTTGAG 610
Db 601 TATATTTGAG 610

RESULT 6
US-10-262-439-82/c
; Sequence 82, Application US/10262439
; Publication No. US20030143196A1
; GENERAL INFORMATION:
; APPLICANT: Sim, Gek-Kee
; APPLICANT: Yang, Shumin
; APPLICANT: Dreitz, Matthew J.
; APPLICANT: Wonderling, Ramani S.
; TITLE OF INVENTION: CANINE AND FELINE IMMUNOREGULATORY PROTEINS, NUCLEIC
; ACID MOLECULES, AND USES THEREOF

; FILE REFERENCE: IM-2-C2
; CURRENT APPLICATION NUMBER: US/10/262,439
; CURRENT FILING DATE: 2002-09-30
; PRIOR APPLICATION NUMBER: US/09/451,527
; PRIOR FILING DATE: 1999-12-01
; PRIOR APPLICATION NUMBER: 09/322,409
; PRIOR FILING DATE: 1999-05-28
; PRIOR APPLICATION NUMBER: 60/087,306
; PRIOR FILING DATE: 1998-05-29
; NUMBER OF SEQ ID NOS: 174
; SOFTWARE: PatentIn Ver. 2.0
; SEQ ID NO 82
; LENGTH: 610
; TYPE: DNA
; ORGANISM: Canis familiaris
US-10-262-439-82

Query Match 100.0%; Score 610; DB 15; Length 610;
Best Local Similarity 100.0%; Pred. No. 0;
Matches 610; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 CAAGGCAAAACATGAACTTTCAGAGCTATGAGAAATGCTTGTGAATTTGAGTTGCTAGC 60
Db 610 CAAGGCAAAACATGAACTTTCAGAGCTATGAGAAATGCTTGTGAATTTGAGTTGCTAGC 551
QY 61 TCTTGGGCGCTGCTATGTTTCTGCTTGTGCTGTAAGAAATCCCATGAATGACTGTGGC 120
Db 550 TCTTGGGCGCTGCTATGTTTCTGCTTGTGCTGTAAGAAATCCCATGAATGACTGTGGC 491
QY 121 AGAGACCTTGACACTGCTCTTCACATCGAATCTTGCGCTGATAGGCGATGGGAACTGAT 180
Db 121 AGAGACCTTGACACTGCTCTTCACATCGAATCTTGCGCTGATAGGCGATGGGAACTGAT 180
QY 181 GATTCCCTACTCTGAAATATATAATCACTGCTGATTAAGAAATTTTTCAGGGTAT 240
Db 181 GATTCCCTACTCTGAAATATATAATCACTGCTGATTAAGAAATTTTTCAGGGTAT 240
QY 241 AGACACATTTGAAGAACCAACTGCGCCACGGGAGGCTGTGATTAACCTATCCAAACTT 300
Db 370 AGACACATTTGAAGAACCAACTGCGCCACGGGAGGCTGTGATTAACCTATCCAAACTT 311
QY 301 GTCTTTAATAAAGAACATAGAGCGCCAAAAAAGGTGTGCAGAGAAAGATGAG 360
Db 310 GTCTTTAATAAAGAACATAGAGCGCCAAAAAAGGTGTGCAGAGAAAGATGAG 251
QY 361 AGTGACAAAGTTCTTAAGACTACCTGCAAGTATTTCTTGATTAATAACCCGAGTGAC 420
Db 250 AGTGACAAAGTTCTTAAGACTACCTGCAAGTATTTCTTGATTAATAACCCGAGTGAC 191
QY 421 ACCGGAAGTTGAGAACAAACCGGCTTATGTAGTGAAGATTTTGGAGAAAGATGTTT 480
Db 190 ACCGGAAGTTGAGAACAAACCGGCTTATGTAGTGAAGATTTTGGAGAAAGATGTTT 131
QY 481 TTTGGCGATGAGAAATGAGGCGCAACCAAGTAGGGAATTATGGCCAGTATTAAGC 540
Db 130 TTTGGCGATGAGAAATGAGGCGCAACCAAGTAGGGAATTATGGCCAGTATTAAGC 71
QY 541 TTTCAGACAAAGTAATATTTTCAGGCACTCTACTTATCACTTCAACAGATGAAA 600
Db 70 TTTCAGACAAAGTAATATTTTCAGGCACTCTACTTATCACTTCAACAGATGAAA 11
QY 601 TATATTTGAG 610
Db 10 TATATTTGAG 1

RESULT 7
US-10-787-382-4
; Sequence 4, Application US/10787382
; Publication No. US20040191868A1
; GENERAL INFORMATION:
; APPLICANT: Yang, Shumin
; APPLICANT: McCall, Catherine A.

APPLICANT: Weber, Eric R.
TITLE OF INVENTION: CANINE AND FELINE IMMUNOREGULATORY PROTEINS, NUCLEIC
FILE REFERENCE: IM-2-C1-C1
CURRENT APPLICATION NUMBER: US/10/787,382
CURRENT FILING DATE: 2004-02-24
PRIOR APPLICATION NUMBER: US/09/755,633
PRIOR FILING DATE: 2001-01-05
PRIOR APPLICATION NUMBER: 09/322,409
PRIOR FILING DATE: 1999-05-28
PRIOR APPLICATION NUMBER: 60/087,306
PRIOR FILING DATE: 1998-05-29
NUMBER OF SEQ ID NOS: 21
SOFTWARE: PatentIn Ver. 2.1
SEQ ID NO 4
LENGTH: 610
TYPE: DNA
ORGANISM: Canis familiaris
FEATURE:
NAME/KEY: CDS
LOCATION: (29)..(430)
US-10-787-382-4

Query Match 100.0%; Score 610; DB 19; Length 610;
Best Local Similarity 100.0%; Pred. No. 0;
Matches 610; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

1 CAAGGCAAAACATGACATTTTCAGAGCTATGAGAAATGCTTGAATTTGAGTTGCTAGC 60
1 CAAGGCAAAACATGACATTTTCAGAGCTATGAGAAATGCTTGAATTTGAGTTGCTAGC 60
1 TCTTGGGCGCTGCTATGTTTCTGCTTGTGTAAGAAATCCAGTAAGACTGCTGAC 120
1 TCTTGGGCGCTGCTATGTTTCTGCTTGTGTAAGAAATCCAGTAAGACTGCTGAC 120
121 AGAGACCTTGACACTGCTCTCCATCGAATCTGCTGATAGGCGATGGGAACCTGAT 180
121 AGAGACCTTGACACTGCTCTCCATCGAATCTGCTGATAGGCGATGGGAACCTGAT 180
181 GATTCTTACTCTCTGAAAAATTAATCAACCACTGCTGATTAAGAAAGTTTTCAGGGTAT 240
181 GATTCTTACTCTCTGAAAAATTAATCAACCACTGCTGATTAAGAAAGTTTTCAGGGTAT 240
241 AGAGACCTTGAGAAACCAAACTGCGCCACGGGAGGCTGTGATTAATCTTCCAAAATT 300
241 AGAGACCTTGAGAAACCAAACTGCGCCACGGGAGGCTGTGATTAATCTTCCAAAATT 300
241 AGAGACCTTGAGAAACCAAACTGCGCCACGGGAGGCTGTGATTAATCTTCCAAAATT 300
301 GTCTTTAATAAAGAACATAGAGCGCCAAAAAAGGTGTGCAAGGAAAGATGAG 360
301 GTCTTTAATAAAGAACATAGAGCGCCAAAAAAGGTGTGCAAGGAAAGATGAG 360
361 AGTACAAAAGTTCTAGACTACCTGCAAGTAATTTCTGTGTAATTAACCAAGTGAGAC 420
361 AGTACAAAAGTTCTAGACTACCTGCAAGTAATTTCTGTGTAATTAACCAAGTGAGAC 420
421 ACCGGAAGTTGAGAAACAAACCGGCTTATTTGATGGAAGATTTTGGAGAAAGATGTTT 480
421 ACCGGAAGTTGAGAAACAAACCGGCTTATTTGATGGAAGATTTTGGAGAAAGATGTTT 480
481 TTTGGCGATGAGATGAGGCGCAACCAAGTAGGGAATTATGGCCAGTAATTAAGC 540
481 TTTGGCGATGAGATGAGGCGCAACCAAGTAGGGAATTATGGCCAGTAATTAAGC 540
541 TTTCAGAGCAAAAGTAATTAATTTTCAGGCACTCTACTTATCACTTACACAGATGAAA 600
541 TTTCAGAGCAAAAGTAATTAATTTTCAGGCACTCTACTTATCACTTACACAGATGAAA 600
601 TATATTTGAG 610
601 TATATTTGAG 610

RESULT 8

US-10-787-382-6/c
Sequence 6, Application US/10787382
Publication No. US20040191868A1
GENERAL INFORMATION:
APPLICANT: Yang, Shumin
APPLICANT: McCall, Catherine A.
APPLICANT: Weber, Eric R.
TITLE OF INVENTION: CANINE AND FELINE IMMUNOREGULATORY PROTEINS, NUCLEIC
FILE REFERENCE: IM-2-C1-C1
CURRENT APPLICATION NUMBER: US/10/787,382
CURRENT FILING DATE: 2004-02-24
PRIOR APPLICATION NUMBER: US/09/755,633
PRIOR FILING DATE: 2001-01-05
PRIOR APPLICATION NUMBER: 09/322,409
PRIOR FILING DATE: 1999-05-28
PRIOR APPLICATION NUMBER: 60/087,306
PRIOR FILING DATE: 1998-05-29
NUMBER OF SEQ ID NOS: 21
SOFTWARE: PatentIn Ver. 2.1
SEQ ID NO 6
LENGTH: 610
TYPE: DNA
ORGANISM: Canis familiaris
US-10-787-382-6

Query Match 100.0%; Score 610; DB 19; Length 610;
Best Local Similarity 100.0%; Pred. No. 0;
Matches 610; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

1 CAAGGCAAAACATGACATTTTCAGAGCTATGAGAAATGCTTGAATTTGAGTTGCTAGC 60
610 CAAGGCAAAACATGACATTTTCAGAGCTATGAGAAATGCTTGAATTTGAGTTGCTAGC 551
61 TCTTGGGCGCTGCTATGTTTCTGCTTGTGTAAGAAATCCAGTAAGACTGCTGAC 120
61 TCTTGGGCGCTGCTATGTTTCTGCTTGTGTAAGAAATCCAGTAAGACTGCTGAC 120
550 TCTTGGGCGCTGCTATGTTTCTGCTTGTGTAAGAAATCCAGTAAGACTGCTGAC 491
550 TCTTGGGCGCTGCTATGTTTCTGCTTGTGTAAGAAATCCAGTAAGACTGCTGAC 491
121 AGAGACCTTGACACTGCTCTCCATCGAATCTGCTGATAGGCGATGGGAACCTGAT 180
121 AGAGACCTTGACACTGCTCTCCATCGAATCTGCTGATAGGCGATGGGAACCTGAT 180
490 AGAGACCTTGACACTGCTCTCCATCGAATCTGCTGATAGGCGATGGGAACCTGAT 431
490 AGAGACCTTGACACTGCTCTCCATCGAATCTGCTGATAGGCGATGGGAACCTGAT 431
181 GATTCTTACTCTCTGAAAAATTAATCAACCACTGCTGATTAAGAAAGTTTTCAGGGTAT 240
181 GATTCTTACTCTCTGAAAAATTAATCAACCACTGCTGATTAAGAAAGTTTTCAGGGTAT 240
430 GATTCTTACTCTCTGAAAAATTAATCAACCACTGCTGATTAAGAAAGTTTTCAGGGTAT 371
430 GATTCTTACTCTCTGAAAAATTAATCAACCACTGCTGATTAAGAAAGTTTTCAGGGTAT 371
241 AGAGACCTTGAGAAACCAAACTGCGCCACGGGAGGCTGTGATTAATCTTCCAAAATT 300
241 AGAGACCTTGAGAAACCAAACTGCGCCACGGGAGGCTGTGATTAATCTTCCAAAATT 300
370 AGAGACCTTGAGAAACCAAACTGCGCCACGGGAGGCTGTGATTAATCTTCCAAAATT 311
370 AGAGACCTTGAGAAACCAAACTGCGCCACGGGAGGCTGTGATTAATCTTCCAAAATT 311
301 GTCTTTAATAAAGAACATAGAGCGCCAAAAAAGGTGTGCAAGGAAAGATGAG 360
301 GTCTTTAATAAAGAACATAGAGCGCCAAAAAAGGTGTGCAAGGAAAGATGAG 360
310 GTCTTTAATAAAGAACATAGAGCGCCAAAAAAGGTGTGCAAGGAAAGATGAG 251
310 GTCTTTAATAAAGAACATAGAGCGCCAAAAAAGGTGTGCAAGGAAAGATGAG 251
361 AGTACAAAAGTTCTAGACTACCTGCAAGTAATTTCTGTGTAATTAACCAAGTGAGAC 420
361 AGTACAAAAGTTCTAGACTACCTGCAAGTAATTTCTGTGTAATTAACCAAGTGAGAC 420
421 ACCGGAAGTTGAGAAACAAACCGGCTTATTTGATGGAAGATTTTGGAGAAAGATGTTT 480
421 ACCGGAAGTTGAGAAACAAACCGGCTTATTTGATGGAAGATTTTGGAGAAAGATGTTT 480
190 ACCGGAAGTTGAGAAACAAACCGGCTTATTTGATGGAAGATTTTGGAGAAAGATGTTT 131
190 ACCGGAAGTTGAGAAACAAACCGGCTTATTTGATGGAAGATTTTGGAGAAAGATGTTT 131
481 TTTGGCGATGAGATGAGGCGCAACCAAGTAGGGAATTATGGCCAGTAATTAAGC 540
481 TTTGGCGATGAGATGAGGCGCAACCAAGTAGGGAATTATGGCCAGTAATTAAGC 540
130 TTTGGCGATGAGATGAGGCGCAACCAAGTAGGGAATTATGGCCAGTAATTAAGC 71
130 TTTGGCGATGAGATGAGGCGCAACCAAGTAGGGAATTATGGCCAGTAATTAAGC 71
541 TTTCAGAGCAAAAGTAATTAATTTTCAGGCACTCTACTTATCACTTACACAGATGAAA 600
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70 TTTCAGAGCAAAAGTAATTAATTTTCAGGCACTCTACTTATCACTTACACAGATGAAA 11
70 TTTCAGAGCAAAAGTAATTAATTTTCAGGCACTCTACTTATCACTTACACAGATGAAA 11
601 TATATTTGAG 610
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10 TATATTTGAG 1

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RESULT 9
US-09-755-633-7
; Sequence 7, Application US/09755633
; Patent No. US20020127200A1
; GENERAL INFORMATION:
; APPLICANT: Yang, Shumin
; APPLICANT: McCall, Catherine A.
; APPLICANT: Weber, Eric R.
; TITLE OF INVENTION: CANINE AND FELINE IMMUNOREGULATORY PROTEINS, NUCLEIC
; TITLE OF INVENTION: ACID MOLECULES, AND USES THEREOF
; FILE REFERENCE: IM-2-CI-C1
; CURRENT APPLICATION NUMBER: US/09/755,633
; PRIOR FILING DATE: 1999-05-28
; PRIOR FILING DATE: 2001-01-05
; PRIOR APPLICATION NUMBER: 60/087,306
; PRIOR FILING DATE: 1998-05-29
; NUMBER OF SEQ ID NOS: 21
; SOFTWARE: PatentIn Ver. 2.1
; SEQ ID NO 7
; LENGTH: 402
; TYPE: DNA
; ORGANISM: Canis familiaris
US-09-755-633-7

Query Match      65.9%; Score 402; DB 9; Length 402;
Best Local Similarity 100.0%; Pred. No. 1.1e-203;
Matches 402; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 29 ATGAGAAATGCTTGAATTTGAGTTTGTAGCTCTTGGGCTGCGTATGTTTCTGCTTT 88
DB 1 ATGAGAAATGCTTGAATTTGAGTTTGTAGCTCTTGGGCTGCGTATGTTTCTGCTTT 60
QY 89 GCTGTAGAAAATCCCATGAAATAGACTGTGGCAGAGACCTTGAACAGCTCTCCACTCAT 148
DB 61 GCTGTAGAAAATCCCATGAAATAGACTGTGGCAGAGACCTTGAACAGCTCTCCACTCAT 120
QY 149 CGAAGCTGGCTGATAGGCGATGGAACCTGATGATTCCTACTCTGTAATAATAAATACAC 208
DB 121 CGAAGCTGGCTGATAGGCGATGGAACCTGATGATTCCTACTCTGTAATAATAAATACAC 180
QY 209 CAACCTGTCATTAAGAAAGTTTTCAGGGTATAGACACATTAAGAAACAAACTGCCAC 268
DB 181 CAACCTGTCATTAAGAAAGTTTTCAGGGTATAGACACATTAAGAAACAAACTGCCAC 240
QY 269 GGGAGGCTGTGATTAACCTTTCCTTTAATTAAGAAACATAGAGCGC 328
DB 241 GGGAGGCTGTGATTAACCTTTCCTTTAATTAAGAAACATAGAGCGC 300
QY 329 CAAAAAAGAGTGTGAGAGAAAGATGAGAGTGAACAAAGTCTAGACTACCTGCAA 388
DB 301 CAAAAAAGAGTGTGAGAGAAAGATGAGAGTGAACAAAGTCTAGACTACCTGCAA 360
QY 389 GTATTTCTTGTTGTAATTAACACCGAGTGAACCGGAAAGT 430
DB 361 GTATTTCTTGTTGTAATTAACACCGAGTGAACCGGAAAGT 402

RESULT 10
US-09-755-633-8/C
; Sequence 8, Application US/09755633
; Patent No. US20020127200A1
; GENERAL INFORMATION:
; APPLICANT: Yang, Shumin
; APPLICANT: McCall, Catherine A.
; APPLICANT: Weber, Eric R.
; TITLE OF INVENTION: CANINE AND FELINE IMMUNOREGULATORY PROTEINS, NUCLEIC
; TITLE OF INVENTION: ACID MOLECULES, AND USES THEREOF
; FILE REFERENCE: IM-2-CI-C1
; CURRENT APPLICATION NUMBER: US/09/755,633
; PRIOR FILING DATE: 2001-01-05
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; PRIOR APPLICATION NUMBER: 09/322,409
; PRIOR FILING DATE: 1999-05-28
; PRIOR APPLICATION NUMBER: 60/087,306
; PRIOR FILING DATE: 1998-05-29
; NUMBER OF SEQ ID NOS: 21
; SOFTWARE: PatentIn Ver. 2.1
; SEQ ID NO 8
; LENGTH: 402
; TYPE: DNA
; ORGANISM: Canis familiaris
US-09-755-633-8

Query Match      65.9%; Score 402; DB 9; Length 402;
Best Local Similarity 100.0%; Pred. No. 1.1e-203;
Matches 402; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 29 ATGAGAAATGCTTGAATTTGAGTTTGTAGCTCTTGGGCTGCGTATGTTTCTGCTTT 88
DB 402 ATGAGAAATGCTTGAATTTGAGTTTGTAGCTCTTGGGCTGCGTATGTTTCTGCTTT 343
QY 89 GCTGTAGAAAATCCCATGAAATAGACTGTGGCAGAGACCTTGAACAGCTCTCCACTCAT 148
DB 342 GCTGTAGAAAATCCCATGAAATAGACTGTGGCAGAGACCTTGAACAGCTCTCCACTCAT 283
QY 149 CGAAGCTGGCTGATAGGCGATGGAACCTGATGATTCCTACTCTGTAATAATAAATACAC 208
DB 282 CGAAGCTGGCTGATAGGCGATGGAACCTGATGATTCCTACTCTGTAATAATAAATACAC 223
QY 209 CAACCTGTCATTAAGAAAGTTTTCAGGGTATAGACACATTAAGAAACAAACTGCCAC 268
DB 222 CAACCTGTCATTAAGAAAGTTTTCAGGGTATAGACACATTAAGAAACAAACTGCCAC 163
QY 269 GGGAGGCTGTGATTAACCTTTCCTTTAATTAAGAAACATAGAGCGC 328
DB 162 GGGAGGCTGTGATTAACCTTTCCTTTAATTAAGAAACATAGAGCGC 103
QY 329 CAAAAAAGAGTGTGAGAGAAAGATGAGAGTGAACAAAGTCTAGACTACCTGCAA 388
DB 102 CAAAAAAGAGTGTGAGAGAAAGATGAGAGTGAACAAAGTCTAGACTACCTGCAA 43
QY 389 GTATTTCTTGTTGTAATTAACACCGAGTGAACCGGAAAGT 430
DB 42 GTATTTCTTGTTGTAATTAACACCGAGTGAACCGGAAAGT 1

RESULT 11
US-10-218-654-83
; Sequence 83, Application US/10218654
; Publication No. US2003009609A1
; GENERAL INFORMATION:
; APPLICANT: Sim, Gek-Kee
; APPLICANT: Yang, Shumin
; APPLICANT: Dreitz, Matthew J.
; TITLE OF INVENTION: CANINE AND FELINE IMMUNOREGULATORY PROTEINS, NUCLEIC
; TITLE OF INVENTION: ACID MOLECULES, AND USES THEREOF
; FILE REFERENCE: IM-2-CI
; CURRENT APPLICATION NUMBER: US/10/218,654
; PRIOR FILING DATE: 2002-08-13
; PRIOR APPLICATION NUMBER: US/09/322,409
; PRIOR FILING DATE: 1999-05-28
; PRIOR APPLICATION NUMBER: 60/087,306
; PRIOR FILING DATE: 1998-05-29
; NUMBER OF SEQ ID NOS: 154
; SOFTWARE: PatentIn Ver. 2.0
; SEQ ID NO 83
; LENGTH: 402
; TYPE: DNA
; ORGANISM: Canis familiaris
US-10-218-654-83

Query Match      65.9%; Score 402; DB 14; Length 402;
Best Local Similarity 100.0%; Pred. No. 1.1e-203;
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Matches 402; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 29 ATGAGAAATGCTTGAATTTGAGTTTGTAGCTCTTGGGGGCTGCTATGTTTGCCTTT 88
DB 1 ATGAGAAATGCTTGAATTTGAGTTTGTAGCTCTTGGGGGCTGCTATGTTTGCCTTT 60
QY 89 GCTGTAGAAAATCCCATGAAATAGACTGTGTGCAGAGACCTTGACATCTGCTCCACTAT 148
DB 61 GCTGTAGAAAATCCCATGAAATAGACTGTGTGCAGAGACCTTGACATCTGCTCCACTAT 120
QY 149 GGAATCTGCTGATAGGCGATGAGAACTGTATGTTCTTACTCTGAAAATTAATAATAC 208
DB 121 GGAATCTGCTGATAGGCGATGAGAACTGTATGTTCTTACTCTGAAAATTAATAATAC 180
QY 209 CAATGTGACATTAAGAAGTTTTCAGGGTATAGACATGGAAGAACCAATGCGCCAC 268
DB 181 CAATGTGACATTAAGAAGTTTTCAGGGTATAGACATGGAAGAACCAATGCGCCAC 240
QY 269 GGGGAGCTGTGATTAACCTATTCCTTCTTAAATAAAGAACATAGAGCGC 328
DB 241 GGGGAGCTGTGATTAACCTATTCCTTCTTAAATAAAGAACATAGAGCGC 300
QY 329 CAAAAAAGGTGTGACAGAGAAAGATGAGAGTACAAAGTTCTTACTTACTGCA 388
DB 301 CAAAAAAGGTGTGACAGAGAAAGATGAGAGTACAAAGTTCTTACTTACTGCA 360
QY 389 GTATTCTGTGTATTAACACCGAGTGAACCGGAAGT 430
DB 361 GTATTCTGTGTATTAACACCGAGTGAACCGGAAGT 402

RESULT 12
US-10-218-654-84/C
Sequence 84, Application US/10218654
Publication No. US2003009609A1
GENERAL INFORMATION:
APPLICANT: Sim, Gek-Kee
APPLICANT: Yang, Shumin
APPLICANT: Dreitz, Matthew J.
APPLICANT: Wonderling, Ramani S.
TITLE OF INVENTION: CANINE AND FELINE IMMUNOREGULATORY PROTEINS, NUCLEIC
FILE REFERENCE: IM-2-C1
CURRENT APPLICATION NUMBER: US/10/218,654
CURRENT FILING DATE: 2002-08-13
PRIOR APPLICATION NUMBER: US/09/322,409
PRIOR FILING DATE: 1999-05-28
PRIOR APPLICATION NUMBER: 60/087,306
PRIOR FILING DATE: 1998-05-29
NUMBER OF SEQ ID NOS: 154
SOFTWARE: PatentIn Ver. 2.0
SEQ ID NO 84
LENGTH: 402
TYPE: DNA
ORGANISM: Canis familiaris
US-10-218-654-84

Query Match 65.9%; Score 402; DB 14; Length 402;
Best Local Similarity 100.0%; Pred. No. 1.1e-203;
Matches 402; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 209 CAATGTGACATTAAGAAGTTTTCAGGGTATAGACATGGAAGAACCAATGCGCCAC 268
DB 222 CAATGTGACATTAAGAAGTTTTCAGGGTATAGACATGGAAGAACCAATGCGCCAC 163
QY 269 GGGGAGCTGTGATTAACCTATTCCTTCTTAAATAAAGAACATAGAGCGC 328
DB 162 GGGGAGCTGTGATTAACCTATTCCTTCTTAAATAAAGAACATAGAGCGC 103
QY 329 CAAAAAAGGTGTGACAGAGAAAGATGAGAGTGAACCAAGTTCTTACTGCA 388
DB 102 CAAAAAAGGTGTGACAGAGAAAGATGAGAGTGAACCAAGTTCTTACTGCA 43
QY 389 GTATTCTGTGTATTAACACCGAGTGAACCGGAAGT 430
DB 42 GTATTCTGTGTATTAACACCGAGTGAACCGGAAGT 1

RESULT 13
US-10-262-439-83
Sequence 83, Application US/10262439
Publication No. US20030143196A1
GENERAL INFORMATION:
APPLICANT: Sim, Gek-Kee
APPLICANT: Yang, Shumin
APPLICANT: Dreitz, Matthew J.
APPLICANT: Wonderling, Ramani S.
TITLE OF INVENTION: CANINE AND FELINE IMMUNOREGULATORY PROTEINS, NUCLEIC
FILE REFERENCE: IM-2-C2
CURRENT APPLICATION NUMBER: US/10/262,439
CURRENT FILING DATE: 2002-09-30
PRIOR APPLICATION NUMBER: US/09/451,527
PRIOR FILING DATE: 1999-12-01
PRIOR APPLICATION NUMBER: 09/322,409
PRIOR FILING DATE: 1999-05-28
PRIOR APPLICATION NUMBER: 60/087,306
PRIOR FILING DATE: 1998-05-29
NUMBER OF SEQ ID NOS: 174
SOFTWARE: PatentIn Ver. 2.0
SEQ ID NO 83
LENGTH: 402
TYPE: DNA
ORGANISM: Canis familiaris
US-10-262-439-83

Query Match 65.9%; Score 402; DB 15; Length 402;
Best Local Similarity 100.0%; Pred. No. 1.1e-203;
Matches 402; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 389 GATATTTCTTGCTGTAATTAACACCGAGTGAACCCGGAAGT 430
 Db 361 GATATTTCTTGCTGTAATTAACACCGAGTGAACCCGGAAGT 402

RESULT 14

US-10-262-439-84/c.
 ; Sequence 84, Application US/10262439
 ; Publication No. US20030143196A1
 ; GENERAL INFORMATION:
 ; APPLICANT: Sim, Gek-Kee
 ; APPLICANT: Yang, Shumin
 ; APPLICANT: Dreitz, Matthew J.
 ; APPLICANT: Wondelring, Ramani S.
 ; TITLE OF INVENTION: CANINE AND FELINE IMMUNOREGULATORY PROTEINS, NUCLEIC
 ; TITLE OF INVENTION: ACID MOLECULES, AND USES THEREOF
 ; FILE REFERENCE: IM-2-C2
 ; CURRENT APPLICATION NUMBER: US/10/262,439
 ; CURRENT FILING DATE: 2002-09-30
 ; PRIOR APPLICATION NUMBER: US/09/451,527
 ; PRIOR FILING DATE: 1999-12-01
 ; PRIOR APPLICATION NUMBER: 09/322,409
 ; PRIOR FILING DATE: 1999-05-28
 ; PRIOR APPLICATION NUMBER: 60/087,306
 ; PRIOR FILING DATE: 1998-05-29
 ; NUMBER OF SEQ ID NOS: 174
 ; SOFTWARE: PatentIn Ver. 2.0
 ; SEQ ID NO 84
 ; LENGTH: 402
 ; TYPE: DNA
 ; ORGANISM: Canis familiaris
 US-10-262-439-84

Query Match 65.9%; Score 402; DB 15; Length 402;
 Best Local Similarity 100.0%; Pred. No. 1,1e-203;
 Matches 402; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 29 ATGAGAAATGCTTGAATTTGAGTTTGCTAGCTCTTGCGGCTGCTAATGTTTCTGCTTT 88
 Db 402 ATGAGAAATGCTTGAATTTGAGTTTGCTAGCTCTTGCGGCTGCTAATGTTTCTGCTTT 343
 QY 89 GCTGTAGAAAATCCCATGAATAGACTGTGCGACAGACCTTGAACACTGCTCCACATCAT 148
 Db 342 GCTGTAGAAAATCCCATGAATAGACTGTGCGACAGACCTTGAACACTGCTCCACATCAT 283
 QY 149 CGAATTGGCTGATAGCGAGTGAACCTGATGATTTCTACTCTCTGAAAAATAAATACAC 208
 Db 282 CGAATTGGCTGATAGCGAGTGAACCTGATGATTTCTACTCTCTGAAAAATAAATACAC 223
 QY 209 CAATGTGCATTAAGAAAGTTTTCAGGGTATAGACATTTGAAGAACCAAACTGCCAC 268
 Db 222 CAATGTGCATTAAGAAAGTTTTCAGGGTATAGACATTTGAAGAACCAAACTGCCAC 163
 QY 269 GGGAGGCTGTGATTAACCTATTTCCAAACCTGCTTTAATAAAGAACACATGAGCGC 328
 Db 162 GGGAGGCTGTGATTAACCTATTTCCAAACCTGCTTTAATAAAGAACACATGAGCGC 103
 QY 329 CAAAAAAGAGTGTGACAGAGAAAGATGAGAGTGAACAAAGTTCTAGACTACCTGCAA 388
 Db 102 CAAAAAAGAGTGTGACAGAGAAAGATGAGAGTGAACAAAGTTCTAGACTACCTGCAA 43
 QY 389 GATATTTCTTGCTGTAATTAACACCGAGTGAACCCGGAAGT 430
 Db 42 GATATTTCTTGCTGTAATTAACACCGAGTGAACCCGGAAGT 1

RESULT 15

US-10-787-382-7
 ; Sequence 7, Application US/10787382
 ; Publication No. US20040191868A1
 ; GENERAL INFORMATION:
 ; APPLICANT: Yang, Shumin
 ; APPLICANT: McCall, Catherine A.

; APPLICANT: Weber, Eric R.
 ; TITLE OF INVENTION: CANINE AND FELINE IMMUNOREGULATORY PROTEINS, NUCLEIC
 ; TITLE OF INVENTION: ACID MOLECULES, AND USES THEREOF
 ; FILE REFERENCE: IM-2-C1-C1
 ; CURRENT APPLICATION NUMBER: US/10/787,382
 ; CURRENT FILING DATE: 2004-02-24
 ; PRIOR APPLICATION NUMBER: US/09/755,633
 ; PRIOR FILING DATE: 2001-01-05
 ; PRIOR APPLICATION NUMBER: 09/322,409
 ; PRIOR FILING DATE: 1999-05-28
 ; PRIOR APPLICATION NUMBER: 60/087,306
 ; PRIOR FILING DATE: 1998-05-29
 ; NUMBER OF SEQ ID NOS: 21
 ; SOFTWARE: PatentIn Ver. 2.1
 ; SEQ ID NO 7
 ; LENGTH: 402
 ; TYPE: DNA
 ; ORGANISM: Canis familiaris
 US-10-787-382-7

Query Match 65.9%; Score 402; DB 19; Length 402;
 Best Local Similarity 100.0%; Pred. No. 1,1e-203;
 Matches 402; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 29 ATGAGAAATGCTTGAATTTGAGTTTGCTAGCTCTTGCGGCTGCTAATGTTTCTGCTTT 88
 Db 1 ATGAGAAATGCTTGAATTTGAGTTTGCTAGCTCTTGCGGCTGCTAATGTTTCTGCTTT 60
 QY 89 GCTGTAGAAAATCCCATGAATAGACTGTGCGACAGACCTTGAACACTGCTCCACATCAT 148
 Db 61 GCTGTAGAAAATCCCATGAATAGACTGTGCGACAGACCTTGAACACTGCTCCACATCAT 120
 QY 149 CGAATTGGCTGATAGCGAGTGAACCTGATGATTTCTACTCTCTGAAAAATAAATACAC 208
 Db 121 CGAATTGGCTGATAGCGAGTGAACCTGATGATTTCTACTCTCTGAAAAATAAATACAC 180
 QY 209 CAATGTGCATTAAGAAAGTTTTCAGGGTATAGACATTTGAAGAACCAAACTGCCAC 268
 Db 181 CAATGTGCATTAAGAAAGTTTTCAGGGTATAGACATTTGAAGAACCAAACTGCCAC 240
 QY 269 GGGAGGCTGTGATTAACCTATTTCCAAACCTGCTTTAATAAAGAACACATGAGCGC 328
 Db 241 GGGAGGCTGTGATTAACCTATTTCCAAACCTGCTTTAATAAAGAACACATGAGCGC 300
 QY 329 CAAAAAAGAGTGTGACAGAGAAAGATGAGAGTGAACAAAGTTCTAGACTACCTGCAA 388
 Db 301 CAAAAAAGAGTGTGACAGAGAAAGATGAGAGTGAACAAAGTTCTAGACTACCTGCAA 360
 QY 389 GATATTTCTTGCTGTAATTAACACCGAGTGAACCCGGAAGT 430
 Db 361 GATATTTCTTGCTGTAATTAACACCGAGTGAACCCGGAAGT 402

Search completed: August 8, 2005, 14:25:03
 Job time : 502.96 secs

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OM nucleic - nucleic search, using sw model

Run on: August 8, 2005, 13:43:44 ; Search time 2589.72 Seconds
(without alignments)
8965.920 Million cell updates/sec

Title: US-10-787-382-4
Perfect score: 610
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Scoring table: OLIGO_NUC
Gapop 60.0 , Gapext 60.0

Searched: 34239544 seqs, 19032134700 residues

Word size : 0

Total number of hits satisfying chosen parameters: 68479088

Minimum DB seq length: 0
Maximum DB seq length: 200000000

Post-processing: Listing first 45 summaries

Database :

EST:
1: gb_est1:
2: gb_est2:
3: gb_hnc:
4: gb_est3:
5: gb_est4:
6: gb_est5:
7: gb_est6:
8: gb_gsa1:
9: gb_gsa2:

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	Query Match	Length	ID	Description
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2	23	3.8	613	CB918469	VVD033P06
3	22	3.6	405	AY412020	Homo sapi
4	22	3.6	405	AY412021	Pan trogl
5	22	3.6	456	BC066281	Homo sapi
6	22	3.6	456	CD559532	CD559532 AGENCOURT
7	22	3.6	456	CD559686	CD559686 AGENCOURT
8	22	3.6	458	BC066279	Homo sapi
9	22	3.6	458	BC066280	Homo sapi
10	22	3.6	463	CD559535	CD559535 AGENCOURT
11	22	3.6	467	CD559688	CD559688 AGENCOURT
12	22	3.6	467	CD559690	CD559690 AGENCOURT
13	22	3.6	470	CD559687	CD559687 AGENCOURT
14	22	3.6	473	CD559689	CD559689 AGENCOURT
15	22	3.6	477	CD559608	CD559608 AGENCOURT
16	22	3.6	478	CD559534	CD559534 AGENCOURT
17	22	3.6	489	CD559536	CD559536 AGENCOURT
18	22	3.6	492	CD559533	CD559533 AGENCOURT
19	22	3.6	495	CR554944	CR554944 DKFZp4469N
20	22	3.6	817	BC069137	Homo sapi
21	22	3.6	907	BH130589	BH130589 ENT0102TR
22	21	3.4	428	CE301804	tigr-gsa-
23	21	3.4	503	BQ598873	MI-P-E4-a
24	21	3.4	737	CR305040	Medicago

25	20	3.3	153	9	CE713006	CE713006 tigr-gsa-
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27	20	3.3	305	1	A1666365	A1666365 mul2c07.x
28	20	3.3	340	1	A1666525	A1666525 mul2c12.x
29	20	3.3	378	8	AQ134641	AQ134641 HS-3055-B
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34	20	3.3	490	7	CM448219	CM448219 GUO_CDNA
35	20	3.3	503	9	CE629992	CE629992 tigr-gsa-
36	20	3.3	511	9	CE553498	CE553498 tigr-gsa-
37	20	3.3	514	9	CE669822	CE669822 tigr-gsa-
38	20	3.3	522	5	BX514766	BX514766 BX514766
39	20	3.3	528	8	AO677395	AO677395 HS-5526.A
40	20	3.3	538	1	AA980077	AA980077 ua28c09.T
41	20	3.3	539	7	CO756651	CO756651 Mdd450041
42	20	3.3	551	9	CE255920	CE255920 tigr-gsa-
43	20	3.3	557	8	A2266075	A2266075 RPI-23-1
44	20	3.3	576	1	A1645939	A1645939 mul2c07.y
45	20	3.3	587	9	CE144318	CE144318 tigr-gsa-

ALIGNMENTS

RESULT 1
LOCUS CE331159 622 bp DNA linear GSS 26-SEP-2003
DEFINITION tigr-gsa-dog-1700033986568 Dog library Canis familiaris genomic,
genomic survey sequence.
ACCESSION CE331159
KEYWORDS GSS.
SOURCE Canis familiaris (dog)
ORGANISM Canis familiaris
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Carnivora; Flesipedata; Canidae; Canis.
REFERENCE 1 (bases 1 to 622)
Kirkness,E.F., Bafna,V., Halpern,A.L., Levy,S., Remington,K.,
Ruch,D.B., Delcher,A.L., Pop,M., Wang,W., Frazer,C.M. and
Venter,J.C.
The dog genome: survey sequencing and comparative analysis
Science 301 (5641), 1898-1903 (2003)

TITLE JOURNAL
MEDLINE 22875432
PUBMED 14512627
COMMENT Contact: Kirkness EF
The Institute for Genomic Research
Department of Eukaryotic Genomics, TIGR, 9712 Medical Center Drive,
Rockville, MD 20850, USA
Tel: 301-838-0200
Fax: 301-838-0208
Email: ekirkness@tigr.org
Class: shotgun.

FEATURES
source 1..622
Location/Qualifiers
/organism="Canis familiaris"
/mol_type="genomic DNA"
/strain="Standard Poodle"
/db_xref="taxon:9615"
/clone_lib="Dog Library"
/note="Site 1: BetXI; Libraries were prepared from
peripheral blood"

ORIGIN

Query Match 45.2%; Score 276; DB 9; Length 622;
Best Local Similarity 100.0%; Pred. No. 3.3e-136;
Matches 276; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
QY 335 AAAAGGTGCGAGGAAAGATGAGAGTGCACAAAGTTCCTAGACTTCTGCAATATTT 394
DB 289 AAAAGGTGCGAGGAAAGATGAGAGTGCACAAAGTTCCTAGACTTCTGCAATATTT 348

QY	395	CTGTGGTAAATAAACA	CCGAGTGGACA	CCGAAAGTTAGAA	CAAA	CCGGCTTTATTTGAG	454
Db	349	CTTGGTGTAAATAAACA	CCGAGTGGACA	CCGAAAGTTAGAA	CAAA	CCGGCTTTATTTGAG	408
QY	455	TGGAAGATTTTGGAGA	GAATGGTTTTTTTGG	CGATGAGATGAGG	GCCCAACCA	CAGTAG	514
Db	409	TGGAAGATTTTGGAGA	GAATGGTTTTTTTGG	CGATGAGATGAGG	GCCCAACCA	CAGTAG	468
QY	515	GGACTTAATGGCCAG	TATTACTAATAGCTT	CAGAGACAAGTA	ATAATTTTCAGG	CATCCTAC	574
Db	469	GGACTTAATGGCCAG	TATTACTAATAGCTT	CAGAGACAAGTA	ATAATTTTCAGG	CATCCTAC	528
QY	575	TACTTTATCATCTTCA	CACAGATGAATAATATTTTGG	610			
Db	529	TACTTTATCATCTTCA	CACAGATGAATAATATTTTGG	564			

RESULT 2					
CB918469					
LOCUS	CB918469	613 bp	mRNA	linear	EST_25-APR-2003
DEFINITION	WB033F06_347571 An expressed sequence tag database for abiotic stresser Berries of Vitis vinifera var. Chardonnay Vitis vinifera CDNA clone WVD033F06_5, mRNA sequence.				
ACCESSION	CB918469				
VERSION	CB918469.1 GI:301313130				
KEYWORDS	EST.				
SOURCE	Vitis vinifera				
ORGANISM	Vitis vinifera				

REFERENCE
AUTHORS
1 (bases 1 to 613)
Cushman, J. C.

TITLE
An expressed sequence tag database for abiotic stressed berries of *Vitis vinifera* var. Chardonnay
Unpublished (2002)

JOURNAL
Contact: Cushman JC

COMMENT

Department of Biochemistry
University of Nevada
MS200, Reno, NV 89557-0014, USA
Tel: 775-784-1918
Fax: 775-784-1650
Email: j.cushman@unr.edu

PCR Primers
FORWARD: T3 20mer
BACKWARD: T7 21mer (backward)
Plate: 033 row: F column: 06
Seq primer: T3 20mer
High quality sequence stop: 613.

FEATURES	source
Location/Qualifiers	
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/clone="VVD033F06"	
/tissue_type="berries"	
/dev_stage="mixed; 8, 9, 11, 13, 15, 16 weeks daf"	
/clone_1lb="An expressed sequence tag database for abioticd	
stressed berries of Vitis vinifera var. Chardonnay"	
/note="Vector: Lambda Uni-Zap XR, Bluescript SK-; Site:1:	
BCoR1; Site:2: XhoI"	

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ORIGIN
Query Match          3.8%; Score 23; DB 6; length 613;
      Similarity 100.0%; Pred. No. 1.5;
      Local Similarity 100.0%; Pred. No. 1.5;
Matches 23; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY      453 AGTGAAGATTTTGGAGAAGAAT 475
      |||||
Db       273 AGTGAAGATTTTGGAGAAGAAT 295

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RESULT 3

AY412020	AY412020	405 bp	DNA	linear	GSS 16-DEC-2003
LOCUS	Homo sapiens IL5 gene, virtual		TRANSCRIPT,	partial	sequence,
DEFINITION	genomic survey sequence.				
ACCESSION	AY412020				
VERSION	AY412020.1	GI:39767985			
KEYWORDS	GSS.				

SOURCE	ORGANISM
Homo sapiens (human)	Homo sapiens
Eukaryote; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Primates; Catarrhini; Hominoidea; Homo.	
REFERENCE 1 (bases 1 to 405) Clark A C, Chowdhury S, Wilson D, Thomas D, Katarian D	

AUTHORS
Todd, M.A., Grantham, S.S., Metcalfe, R., Hinchey, F., Farnsworth, A.,
Lodt, A.G., Tanenbaum, D.M., Cavello, D.R., Lu, F., Murphy, B.,
Ferreira, S., Wang, G., Zheng, X.H., White, T.J., Slatinsky, J.J.,
Adams, M.D. and Cargill, M.

TITLE
Inferring nonneutral evolution from human-chimp-mouse orthologous
gene trios

JOURNAL PUBMED AUTHORS	REFERENCE
Science 302 (5652), 1960-1963 (2003)	2 (bases 1 to 405)
Clark, A.G., Glanowski, S., Nielson, R., Thomas, P., Kejariwal, A., Todd, M.A., Tanenbaum, D.M., Civeille, D.R., Lu, F., Murphy, B.,	

TITLE Periera, S., Wang, G., Zheng, X.H., White, T.J., Smnksy, J.J., Adams, M.D. and Cargill, M.
JOURNAL Direct Submission
Submitted (16-NOV-2003) Celera Genomics, 45 West Gude Drive, Rockville, MD 20850, USA

FEATURES	COMMENT
source	this sequence was made by sequencing genomic exons and ordering them based on alignment.
	Location/Qualifiers
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/organism="Homo sapiens"	
/mol_type="genomic DNA"	

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    /db_xref="taxon:9606"
    <1..>405
    /gene="IL5"
    /locus_tag="HCM4418"

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Best Local Similarity 100.0%; Freq. No. 5;
Matches 22; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
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Oy	45	ATTGAGTTGCTAGCTTGG	66
Dd	17	ATTGAGTTGCTAGCTTGG	38

RESULT 4	
AY412021	
LOCUS	405 bp DNA linear
DEFINITION	Genomic survey sequence.
ACCESSION	AY412021
	AY412021
	Par troglodytes IL5 gene, VIRUAL TRANSCRIPT, partial sequence,
	Genomic survey sequence.
	AY412021

Accession AY142021
Version AY142021.1 GI:39767986
Keywords GSS.
Source Pan troglodytes (chimpanzee)
Organism Pan troglodytes
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;

REFERENCE
AUTHORS

Mammalia: Eutheria: Primates: Catarrhini, Hominoidea: Pan.
1 (basees 1 to 405)
Clark, A.G., Gladowski, S., Nilsson, R., Thomas, P., Keisariyal, A.,
Todd, M.A., Tanenbaum, D.M., Clevell, D.R., Lu, F., Murphy, B.,
Ferreira, S., Wang, G., Zheng, X.H., White, T.J., Sainsky, J.J.,

TITLE
Adams, M.D. and Cargill, M.
Inferring nonneutral evolution from human-chimp-mouse orthologous
gene trios
JOURNAL
Science 302 (5652), 1960-1963 (2003)
PUBMED
14671302

REFERENCE
2 (bases 1 to 405)
Clark, A.G., Gianowski, S., Nielson, R., Thomas, P., Kejariwal, A.,
Todd, M.A., Tannenbaum, D.M., Ciavella, D.R., Liu, F., Murphy, B.,

TITLE
JOURNAL

Ferreira, S., Wang, G., Zheng, X.H., White, T.J., Sniinsky, J.J.,
Adams, M.D., and Cargill, M.
Submitted (16-NOV-2003) Celera Genomics, 45 West Gude Drive,
Rockville, MD 20850, USA
This sequence was made by sequencing genomic exons and ordering
them based on alignment.

FEATURES
source

1..405
/organism="Pan troglodytes"
/mol_type="genomic DNA"
/db_xref="taxon:9598"
<1..>405
/gene="IL5"
/locus_tag="HGM4418"

ORIGIN

Query Match 3.6%; Score 22; DB 9; Length 405;
Best Local Similarity 100.0%; Pred. No. 5;
Matches 22; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Cy 45 ATTGAGTTGCTAGCTCTTG 66
Db 17 ATTGAGTTGCTAGCTCTTG 38

RESULT 5
BC066281 456 bp mRNA linear HTC 12-FEB-2004
DEFINITION Homo sapiens cDNA clone IMAGE:6971770, containing frame-shift
errors.

ACCESSION
BC066281
VERSION
KEYWORDS
SOURCE
ORGANISM

Homo sapiens (human)
Homo sapiens
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Primates; Catarrhini; Homnidae; Homo.

REFERENCE
AUTHORS
Strauberg, R.L., Feingold, E.A., Grouse, L.H., Derge, J.G.,
Klausner, R.D., Collins, F.S., Wagner, L., Shemmen, C.M., Schuler, G.D.,
Altschul, S.F., Zeeberg, B., Buetow, K.H., Schaefer, C.F., Bhat, N.K.,
Hopkins, R.F., Jordan, H., Moore, T., Max, S.I., Wang, J., Hsieh, F.,
Ditchenko, L., Marusina, K., Farmer, A.A., Rubin, G.M., Hong, L.,
Stepleton, M., Soares, M.B., Bonaldo, M.F., Casavant, T.L.,
Carninci, P., Prange, C., Raha, S.S., Loquellano, N.A., Peters, G.J.,
Abramson, R.D., Mullaly, S.J., Bosak, S.A., McEwan, P.J.,
McKernan, K.J., Malek, J.A., Gunaratne, P.H., Richards, S.,
Worley, K.C., Hale, S., Garcia, A.M., Gay, L.J., Hulyk, S.W.,
Villalón, D.K., Muzny, D.M., Sodergren, E.J., Lu, X., Gibbs, R.A.,
Fahey, J., Helton, E., Kettelman, M., Maman, A., Young, A.C., Shevchenko, Y.,
Sanchez, A., Whiting, M., Madan, A., Young, A.C., Shevchenko, Y.,
Bouffard, G.G., Blakesley, R.W., Touchman, J.W., Green, E.D.,
Dickson, M.C., Rodriguez, A.C., Grimwood, J., Schmutz, J., Myers, R.M.,
Butterfield, Y.S., Krzywinski, M.I., Skalka, U., Smalls, D.E.,
Scherer, A., Schein, J.E., Jones, S.J. and Marra, M.A.
Generation and initial analysis of more than 15,000 full-length
human and mouse cDNA sequences
Proc. Natl. Acad. Sci. U.S.A. 99 (26), 16899-16903 (2002)

TITLE
JOURNAL
PUBMED
REFERENCE
AUTHORS
JOURNAL

Strauberg, R.
Direct Submission
Submitted (03-FEB-2004) National Institutes of Health, Mammalian
Gene Collection (MGC), Cancer Genomics Office, National Cancer
Institute, 31 Center Drive, Room 11A03, Bethesda, MD 20892-2590,
USA
NIH-MGC Project URL: <http://mgc.nci.nih.gov>
Contact: MGC help desk
Email: cgapba-remail.nih.gov
Tissue Procurement: Narayan Bhat
cDNA Library Preparation: Bhat Laboratory

REMARK
COMMENT

cDNA Library Arrayed by: The I.M.A.G.E. Consortium (LNL)
DNA Sequencing by: Sequencing Group at the Stanford Human Genome
Center, Stanford University School of Medicine, Stanford, CA 94305
Web site: <http://www.sbgc.stanford.edu>
Contact: (Dickson, Mark) mcd@pacil.stanford.edu
Dickson, M., Schmutz, J., Grimwood, J., Rodriguez, A., and Myers,
R. M.

Clone distribution: MGC clone distribution information can be found
through the I.M.A.G.E. Consortium/LNL at: <http://image.llnl.gov>
Series: IRAK Plate: 172 Row: a Column: 17
This clone was selected for full length sequencing because it
passed the following selection criteria: matched mRNA gi: 28559032
This clone has the following problem: frame shifted.
Location/Qualifiers

FEATURES
source

1..456
/organism="Homo sapiens"
/mol_type="mRNA"
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/clone="IMAGE:6971770"
/tissue_type="PCR rescued clones"
/clone_lib="NIH MGC_195"
/lab_host="DH10B"
/note="Vector: pDNR-Dual"

ORIGIN

Query Match 3.6%; Score 22; DB 3; Length 456;
Best Local Similarity 100.0%; Pred. No. 5;
Matches 22; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Cy 45 ATTGAGTTGCTAGCTCTTG 66
Db 40 ATTGAGTTGCTAGCTCTTG 61

RESULT 6
CD559532 456 bp mRNA linear EST 11-JUN-2003
DEFINITION AGNCOURT 14497057 NIH MGC_195 Homo sapiens cDNA clone
IMAGE:6971772 5', mRNA sequence.

ACCESSION
CD559532
VERSION
KEYWORDS
SOURCE
ORGANISM

Homo sapiens (human)
Homo sapiens
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Primates; Catarrhini; Homnidae; Homo.

REFERENCE
AUTHORS
TITLE
JOURNAL
COMMENT

NIH-MGC <http://mgc.nci.nih.gov/>.
National Institutes of Health, Mammalian Gene Collection (MGC)
Unpublished (1999)
Contact: Daniela S. Gerhard, Ph.D.
Office of Cancer Genomics
National Cancer Institute / NIH
Bldg. 31 Rm10A07 Bethesda, MD 20892
Email: cgapba-remail.nih.gov
Tissue Procurement: Narayan Bhat
cDNA Library Preparation: Bhat Laboratory
DNA Sequencing by: Agencourt Bioscience Corporation
Clone distribution: MGC clone distribution information can be
found through the I.M.A.G.E. Consortium/LNL at:
<http://image.llnl.gov> column: 11
Plate: IRAK1 row: 9
High quality sequence stop: 456.
Location/Qualifiers

FEATURES
source

1..456
/organism="Homo sapiens"
/mol_type="mRNA"
/db_xref="taxon:9606"
/clone="IMAGE:6971772"
/tissue_type="mixed"
/lab_host="DH5A (T1 phage-resistant)"

/clone_1lb="NIH_MGC_195"
/note="Vector: pDNR-Dual; Site 1: loxp-Sali; Site 2:
loxP-HindIII; Clones from this library have been
PCR-amplified using gene-specific primers to contain the
complete open reading frame (based on known gene sequences
available from NCBI's RefSeq). Template for PCR is cDNA
derived from either pooled cytoplasmic polyA RNA from 30
cells lines or pooled total RNA from 10 different tissues
(from BD Biosciences/Clontech and Washington University).
PCR products are directionally cloned into the loxp sites
of the pDNR-Dual vector. Library constructed by Dr.
Narayan Bhat, Earl Bere III and Hongling Liao (Gene
Expression Laboratory, Research Technology Program, SAIC
Frederick, NCI-Frederick, Frederick, MD 21702). For
information on which gene each clone represents, please
visit our anonymous ftp site at
ftp://image.llnl.gov/image/rearrayed_plates/IRBK.presv.dat
a Note: this is a NIH_MGC Library."

ORIGIN

Query Match 3.6%; Score 22; DB 6; Length 456;
Best Local Similarity 100.0%; Pred. No. 5;
Matches 22; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 45 ATTGAGTTGCTAGCTCTTG 66
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Db 38 ATTGAGTTGCTAGCTCTTG 59

RESULT 7
CD559686/c 456 bp mRNA linear EST 11-JUN-2003
LOCUS
DEFINITION
IMAGE:6971772 3', mRNA sequence.
ACCESSION
CD559686
VERSION
CD559686.1 GI:31585754
KEYWORDS
EST.
SOURCE
Homo sapiens (human)
ORGANISM
Homo sapiens
Mammalia; Eutheria; Chordata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Primates; Catarrhini; Homnidae; Homo.

REFERENCE
AUTHORS
TITLE
JOURNAL
COMMENT
1 (bases 1 to 456)
NIH-MGC http://mgc.nci.nih.gov/
National Institutes of Health, Mammalian Gene Collection (MGC)
Unpublished (1999)
Contact: Daniela S. Gerhard, Ph.D.
Office of Cancer Genomics
National Cancer Institute / NIH
Bldg. 31 Rm10A07 Bethesda, MD 20892
Email: cgapbs-remail.nih.gov
Tissue Procurement: Narayan Bhat
cDNA Library Preparation: Bhat Laboratory
DNA Library Arrayed by: The I.M.A.G.E. Consortium (LLNL)
DNA Sequencing by: Agencourt Bioscience Corporation
Clone distribution: MGC clone distribution information can be
found through the I.M.A.G.E. Consortium/LLNL at:
http://image.llnl.gov

Plate: IRBK1 row: 9 column: 11
http://image.llnl.gov

High quality sequence stop: 456.

FEATURES

SOURCE

1. 456

/organism="Homo sapiens"

/mol_type="mRNA"

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/clone="IMAGE:6971772"

/tissue_type="mixed"

/lab_host="DH5A (TI phage-resistant)"

/clone_1lb="NIH_MGC_195"

/note="Vector: pDNR-Dual; Site 1: loxp-Sali; Site 2:
loxP-HindIII; Clones from this library have been
PCR-amplified using gene-specific primers to contain the
complete open reading frame (based on known gene sequences
available from NCBI's RefSeq). Template for PCR is cDNA

ORIGIN

Query Match 3.6%; Score 22; DB 6; Length 456;
Best Local Similarity 100.0%; Pred. No. 5;
Matches 22; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 45 ATTGAGTTGCTAGCTCTTG 66
|||||
Db 417 ATTGAGTTGCTAGCTCTTG 396

RESULT 8
BC066279 458 bp mRNA linear HTC 12-FEB-2004
LOCUS
DEFINITION
IMAGE:6971768, containing frame-shift
errors.
ACCESSION
BC066279
VERSION
BC066279.1 GI:42490901
KEYWORDS
HTC.
SOURCE
Homo sapiens (human)
ORGANISM
Homo sapiens
Mammalia; Eutheria; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Primates; Catarrhini; Homnidae; Homo.

REFERENCE
AUTHORS
TITLE
JOURNAL
COMMENT
1 (bases 1 to 458)
Strausberg, R.L., Feingold, E.A., Grouse, L.H., Derge, J.G.,
Klausner, R.D., Collins, F.S., Wagner, C.M., Schuler, G.D.,
Altschul, S.F., Zeeberg, B., Buetow, K.H., Schaefer, C.F., Bhat, N.K.,
Hopkins, R.F., Jordan, H., Moore, T., Max, S.I., Wang, J., Hsieh, F.,
Datsenko, L., Marusina, K., Farmer, A.A., Rubin, G.M., Hong, L.,
Stapleton, M., Soares, M.B., Bonaldo, M.F., Casavant, T.L.,
Schaefer, T.E., Brownstein, M.U., Uedl, T.B., Toshuyuki, S.,
Carinci, P., Prange, C., Raha, S.S., Loggellano, N.A., Peters, G.J.,
Abramson, R.D., Mullany, S.J., Bosak, S.A., McEwan, P.J.,
McKernan, K.J., Malek, J.A., Gunaratne, P.H., Richards, S.,
Worley, K.C., Hale, S., Garcia, A.M., Gay, L.J., Hulyk, S.W.,
Villalon, D.K., Muzny, D.M., Sodergren, E.J., Lu, X., Gibbs, R.A.,
Fahey, J., Helton, E., Kettaman, M., Madan, A., Rodriguez, S.,
Sanchez, A., Whitting, M., Madan, A., Young, A.C., Shevchenko, Y.,
Bouffard, G.G., Blakesley, R.W., Touchman, J.W., Green, E.D.,
Dickson, M.C., Rodriguez, A.C., Grimwood, J., Schmutz, J., Myers, R.M.,
Butterfield, Y.S., Krzywicki, M.I., Skalek, U., Smailus, D.E.,
Schmerch, A., Schein, J.E., Jones, S.O., and Marra, M.A.
Generation and initial analysis of more than 15,000 full-length
human and mouse cDNA sequences
Proc. Natl. Acad. Sci. U.S.A. 99 (26), 16899-16903 (2002)

JOURNAL
PUBMED
REFERENCE
AUTHORS
TITLE
JOURNAL
COMMENT
2 (bases 1 to 458)
Strausberg, R.
Direct Submision
Submitted (03-FEB-2004) National Institutes of Health, Mammalian
Gene Collection (MGC), Cancer Genomics Office, National Cancer
Institute, 31 Center Drive, Room 11A03, Bethesda, MD 20892-2590,
USA

NIH-MGC Project URL: http://mgc.nci.nih.gov
Contact: MGC help desk
Email: cgapbs-remail.nih.gov
Tissue Procurement: Narayan Bhat
cDNA Library Preparation: Bhat Laboratory
DNA Library Arrayed by: The I.M.A.G.E. Consortium (LLNL)
DNA Sequencing by: Sequencing Group at the Stanford Human Genome
Center, Stanford University School of Medicine, Stanford, CA 94305

Web site: <http://www-shgc.stanford.edu>
 Contact: (Dickson, Mark) mcd@paxil.stanford.edu
 Dickson, M., Schmutz, J., Grimwood, J., Rodriguez, A., and Myers, R. M.

Clone distribution: MGC clone distribution information can be found through the I.M.A.G.E. Consortium/LNL at: <http://image.llnl.gov>
 Series: IRAC Plate: 172 Row: a Column: 15
 This clone was selected for full length sequencing because it passed the following selection criteria: matched mRNA gi: 28559032
 This clone has the following problem: frame shifted.

FEATURES

SOURCE

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1..458
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/tissue_type="PCR rescued clones"
/clone_lib="NIH_MGC_195"
/lab_host="DH10B"
/note="Vector: pDNR-Dual"

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ORIGIN

Query Match 3.6%; Score 22; DB 3; Length 458;
 Best Local Similarity 100.0%; Pred. No. 5;
 Matches 22; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Oy 45 ATTGAGTTGCTAGCTCTTGG 66
 ||||||||||||||||||||
 Db 40 ATTGAGTTGCTAGCTCTTGG 61

RESULT 9
 EC066280 458 bp mRNA linear HTC 12-FEB-2004
 LOCUS Homo sapiens cDNA clone IMAGE:6971769, containing frame-shift
 DEFINITION error.

ACCESSION BC066280
 VERSION BC066280.1 GI:42490838
 KEYWORDS HTC.

SOURCE

ORGANISM

Homo sapiens (human)
 Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
 Mammalia; Eutheria; Primates; Catarrhini; Homnidae; Homo.

REFERENCE

AUTHORS

1 (bases 1 to 458)
 Strausberg, R.L., Feingold, E.A., Grouse, L.H., Derge, J.G.,
 Klausner, R.D., Collins, F.S., Wagner, L., Shenmen, C.M., Schuler, G.D.,
 Altschul, S.F., Zeeberg, B., Buetow, K.H., Schaefer, C.F., Bhat, N.K.,
 Hopkins, R.F., Jordan, H., Moore, T., Max, S.I., Wang, J., Hsieh, F.,
 Diatchenko, L., Marusina, K., Farmer, A.A., Rubin, G.M., Hong, L.,
 Stapleton, M., Soares, M.B., Bonaldo, M.F., Casavant, T.L.,
 Scheetz, T.E., Brownstein, M.J., Usdin, T.B., Tothylaki, S.,
 Carninci, P., Prange, C., Raha, S.S., Loquellano, N.A., Peters, G.J.,
 Abramson, R.D., Mullahy, S.J., Bosak, S.A., McEwan, P.J.,
 McEran, K.J., Malek, J.A., Gunaratne, P.H., Richards, S.,
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 Sanchez, A., Whiting, M., Madan, A., Young, A.C., Shevchenko, Y.,
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 Dickson, M.C., Rodriguez, A.C., Grimwood, J., Schmutz, J., Myers, R.M.,
 Butlerfield, Y.S., Krzywinski, M.I., Skalek, U., Smillie, D.E.,
 Schnerch, A., Schein, J.E., Jones, S.J. and Marra, M.A.,
 Generation and initial analysis of more than 15,000 full-length
 human and mouse cDNA sequences

TITLE

JOURNAL PUBLISHED
 12479932
 Proc. Natl. Acad. Sci. U.S.A. 99 (26), 16899-16903 (2002)

REFERENCE

AUTHORS

JOURNAL PUBLISHED
 12479932
 Strausberg, R.
 Direct Submission
 Submitted (03-FEB-2004) National Institutes of Health, Mammalian
 Gene Collection (MGC), Cancer Genomics Office, National Cancer
 Institute, 31 Center Drive, Room 11A03, Bethesda, MD 20892-2590,

REMARK

COMMENT

USA
 NIH-MGC Project URL: <http://mgc.nci.nih.gov>
 Contact: MGC help desk
 Email: gcgaps-remail.nih.gov
 Tissue Procurement: Narayan Bhat
 cDNA Library Preparation: Bhat Laboratory
 DNA Sequencing by: The I.M.A.G.E. Consortium (LNL)
 Center, Stanford University School of Medicine, Stanford, CA 94305
 Web site: <http://www-shgc.stanford.edu>
 Contact: (Dickson, Mark) mcd@paxil.stanford.edu
 Dickson, M., Schmutz, J., Grimwood, J., Rodriguez, A., and Myers, R. M.

FEATURES

SOURCE

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/clone="IMAGE:6971769"
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 Db 40 ATTGAGTTGCTAGCTCTTGG 61

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 LOCUS AGENCOURT 14496865 NIH_MGC_195 Homo sapiens cDNA clone
 DEFINITION IMAGE:6971769 5', mRNA sequence.

ACCESSION CD559535
 VERSION CD559535.2 GI:38558950
 KEYWORDS EST.

SOURCE

ORGANISM

Homo sapiens (human)
 Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
 Mammalia; Eutheria; Primates; Catarrhini; Homnidae; Homo.

REFERENCE

AUTHORS

1 (bases 1 to 463)
 NIH-MGC <http://mgc.nci.nih.gov/>.
 National Institutes of Health, Mammalian Gene Collection (MGC)
 Unpublished (1999)
 On Jun 10, 2003 this sequence version replaced gi:31585603.
 Contact: Daniela S. Gerhard, Ph.D.
 Office of Cancer Genomics
 National Cancer Institute / NIH
 Bldg. 31 Rm10A07 Bethesda, MD 20892

TITLE

JOURNAL

Unpublished (1999)
 Email: gcgaps-remail.nih.gov
 Tissue Procurement: Narayan Bhat
 cDNA Library Preparation: Bhat Laboratory
 DNA Sequencing by: Agencourt Bioscience Corporation
 Clone distribution: MGC clone distribution information can be
 found through the I.M.A.G.E. Consortium/LNL at:

FEATURES

http://image.llnl.gov
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 High quality sequence stop: 463.
 Location/Qualifiers


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/notes="Vector: PDNR-Dual; Site_1: loxp-Sall; Site_2: loxp-HindIII; Clones from this library have been PCR-amplified using gene-specific primers to contain the complete open reading frame (based on known gene sequences available from NCBI's RefSeq). Template for PCR is cDNA derived from either pooled cytoplasmic polyA RNA from 30 cells lines or pooled total RNA from 10 different tissues (from BD Biosciences/Clontech and Washington University). PCR products are directionally cloned into the loxp sites of the PDNR-Dual vector. Library constructed by Dr. Narayan Bhat, Earl Bere III and Hongling Liao (Gene Expression Laboratory, Research Technology Program, SAIC Frederick, NCI-Frederick, Frederick, MD 21702). For information on which gene each clone represents, please visit our anonymous ftp site at ftp://image.llnl.gov/image/rearrayed_plates/IRBK.presv.dat a Note: this is a NIH_MGC library."
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Best Local Similarity 100.0%; Pred. No. 5;
Matches 22; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

ORIGIN

45 ATTTGAGTTTGTAGCTCTTGG 66
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44 ATTTGAGTTTGTAGCTCTTGG 65

RESULT 11
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LOCUS AGENCOURT 14496964 NIH_MGC_195 Homo sapiens cDNA clone
DEFINITION IMAGE:6971770 5', mRNA sequence.
ACCESSION CD559688
VERSION CD559688.2 GI:38453486
KEYWORDS EST.
SOURCE Homo sapiens (human)
ORGANISM Homo sapiens
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Primates; Catarrhini; Homnidae; Homo.
REFERENCE 1 (bases 1 to 467)
AUTHORS NIH-MGC http://mgc.nci.nih.gov/.
TITLE National Institutes of Health, Mammalian Gene Collection (MGC)
JOURNAL Unpublished (1999)
COMMENT On Jun 10, 2003 this sequence version replaced gi:31585756.
Contact: Daniela S. Gerhard, Ph.D.
Office of Cancer Genomics
National Cancer Institute / NIH
Bldg. 31 Rm10A07 Bethesda, MD 20892
Email: cgsapbs-remail.nih.gov
Tissue Procurement: Narayan Bhat
cDNA Library Preparation: Bhat Laboratory
cDNA Library Arrayed by: The I.M.A.G.E. Consortium (LNL)
DNA Sequencing by: Agencourt Bioscience Corporation
Clone distribution: MGC clone distribution information can be
found through the I.M.A.G.E. Consortium/LNL at:
http://image.llnl.gov
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Query Match 3.6%; Score 22; DB 6; Length 467;
Best Local Similarity 100.0%; Pred. No. 5;
Matches 22; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

ORIGIN

45 ATTTGAGTTTGTAGCTCTTGG 66
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427 ATTTGAGTTTGTAGCTCTTGG 406

RESULT 12
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LOCUS AGENCOURT 14496838 NIH_MGC_195 Homo sapiens cDNA clone
DEFINITION IMAGE:6971768 5', mRNA sequence.
ACCESSION CD559690
VERSION CD559690.2 GI:38453490
KEYWORDS EST.
SOURCE Homo sapiens (human)
ORGANISM Homo sapiens
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Primates; Catarrhini; Homnidae; Homo.
REFERENCE 1 (bases 1 to 467)
AUTHORS NIH-MGC http://mgc.nci.nih.gov/.
TITLE National Institutes of Health, Mammalian Gene Collection (MGC)
JOURNAL Unpublished (1999)
COMMENT On Jun 10, 2003 this sequence version replaced gi:31585758.
Contact: Daniela S. Gerhard, Ph.D.
Office of Cancer Genomics
National Cancer Institute / NIH
Bldg. 31 Rm10A07 Bethesda, MD 20892
Email: cgsapbs-remail.nih.gov
Tissue Procurement: Narayan Bhat
cDNA Library Preparation: Bhat Laboratory
cDNA Library Arrayed by: The I.M.A.G.E. Consortium (LNL)
DNA Sequencing by: Agencourt Bioscience Corporation
Clone distribution: MGC clone distribution information can be
found through the I.M.A.G.E. Consortium/LNL at:
http://image.llnl.gov
Plate: IRBK1 row: 9 column: 07
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loxP-HindIII; Clones from this library have been PCR-amplified using gene-specific primers to contain the complete open reading frame (based on known gene sequences available from NCBI's RefSeq). Template for PCR is cDNA derived from either pooled cytoplasmic polyA RNA from 30 cells lines or pooled total RNA from 10 different tissues (from BD Biosciences/Clontech and Washington University). PCR products are directionally cloned into the loxP sites of the pDNR-Dual vector. Library constructed by Dr. Narayan Bhat, Earl Bere III and Hongling Liao (Gene Expression Laboratory, Research Technology Program, SAIC Frederick, NCI-Frederick, Frederick, MD 21702). For information on which gene each clone represents, please visit our anonymous ftp site at ftp://image.llnl.gov/image/rearrayed_plates/IRBK.presv.dat
a Note: this is a NIH_MGC library."

ORIGIN

Query Match 3.6%; Score 22; DB 6; Length 467;
Best Local Similarity 100.0%; Pred. No. 5;
Matches 22; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

OY 45 ATTGAGTTGCTAGCTCTTGG 66
|||||
Db 427 ATTGAGTTGCTAGCTCTTGG 406

RESULT 13
CD559687/c 470 bp mRNA linear EST 19-NOV-2003
LOCUS
DEFINITION
AGENCOURT 14497029 NIH MGC 195 Homo sapiens cDNA clone
IMAGE:6971771 5', mRNA sequence.
ACCESSION
CD559687
VERSION
KEYWORDS
SOURCE
ORGANISM
Homo sapiens (human)
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Primates; Catarrhini; Homnidae; Homo.
1 (bases 1 to 470)
NIH-MGC <http://mgc.nci.nih.gov/>.
National Institutes of Health, Mammalian Gene Collection (MGC)
Unpublished (1999)
On Jun 10, 2003 this sequence version replaced gi:31585755.
Contact: Daniela S. Gerhard, Ph.D.
Office of Cancer Genomics
National Cancer Institute / NIH
Bldg. 31 Rm10A07 Bethesda, MD 20892
Email: cgabbs-remail.nih.gov
Tissue Procurement: Narayan Bhat
CDNA Library Preparation: Bhat Laboratory
CDNA Library Arrayed by: The I.M.A.G.E. Consortium (LLNL)
DNA sequencing by: Agencourt Bioscience Corporation
Clone distribution: MGC clone distribution information can be
found through the I.M.A.G.E. Consortium/LLNL at:
<http://image.llnl.gov>
Plate: IRBK1 row: 9 column: 10
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FEATURES
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/note="Vector: pDNR-Dual; Site 1: loxP-SalI; Site 2:
loxP-HindIII; Clones from this library have been
PCR-amplified using gene-specific primers to contain the
complete open reading frame (based on known gene sequences
available from NCBI's RefSeq). Template for PCR is cDNA

derived from either pooled cytoplasmic polyA RNA from 30 cells lines or pooled total RNA from 10 different tissues (from BD Biosciences/Clontech and Washington University). PCR products are directionally cloned into the loxP sites of the pDNR-Dual vector. Library constructed by Dr. Narayan Bhat, Earl Bere III and Hongling Liao (Gene Expression Laboratory, Research Technology Program, SAIC Frederick, NCI-Frederick, Frederick, MD 21702). For information on which gene each clone represents, please visit our anonymous ftp site at ftp://image.llnl.gov/image/rearrayed_plates/IRBK.presv.dat
a Note: this is a NIH_MGC library."

ORIGIN

Query Match 3.6%; Score 22; DB 6; Length 470;
Best Local Similarity 100.0%; Pred. No. 5;
Matches 22; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

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|||||
Db 430 ATTGAGTTGCTAGCTCTTGG 409

RESULT 14
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LOCUS
DEFINITION
AGENCOURT 14496901 NIH_MGC_195 Homo sapiens cDNA clone
IMAGE:6971769 5', mRNA sequence.
ACCESSION
CD559689
VERSION
KEYWORDS
SOURCE
ORGANISM
Homo sapiens (human)
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Primates; Catarrhini; Homnidae; Homo.
1 (bases 1 to 473)
NIH-MGC <http://mgc.nci.nih.gov/>.
National Institutes of Health, Mammalian Gene Collection (MGC)
Unpublished (1999)
On Jun 10, 2003 this sequence version replaced gi:31585757.
Contact: Daniela S. Gerhard, Ph.D.
Office of Cancer Genomics
National Cancer Institute / NIH
Bldg. 31 Rm10A07 Bethesda, MD 20892
Email: cgabbs-remail.nih.gov
Tissue Procurement: Narayan Bhat
CDNA Library Preparation: Bhat Laboratory
CDNA Library Arrayed by: The I.M.A.G.E. Consortium (LLNL)
DNA sequencing by: Agencourt Bioscience Corporation
Clone distribution: MGC clone distribution information can be
found through the I.M.A.G.E. Consortium/LLNL at:
<http://image.llnl.gov>
Plate: IRBK1 row: 9 column: 08
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FEATURES
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loxP-HindIII; Clones from this library have been
PCR-amplified using gene-specific primers to contain the
complete open reading frame (based on known gene sequences
available from NCBI's RefSeq). Template for PCR is cDNA
cells lines or pooled total RNA from 10 different tissues
(from BD Biosciences/Clontech and Washington University).
PCR products are directionally cloned into the loxP sites

of the pDNR-Dual vector. Library constructed by Dr. Narayan Bhat, Earl Bere III and Hongling Liao (Gene Expression Laboratory, Research Technology Program, SAIC Frederick, NCI-Frederick, Frederick, MD 21702). For information on which gene each clone represents, please visit our anonymous ftp site at ftp://image.llnl.gov/image/rearrayed_plates/IRBK.presv.dat
 a Note: this is a NIH_MGC Library."

ORIGIN

Query Match 3.6%; Score 22; DB 6; Length 473;
 Best Local Similarity 100.0%; Pred.No. 5;
 Matches 22; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 45 ATTGAGTTGCTAGCTCTTGG 66
 |||||
 Db 433 ATTGAGTTGCTAGCTCTTGG 412

RESULT 15

CD559608

LOCUS

DEFINITION

ACCESSION

VERSION

KEYWORDS

SOURCE

ORGANISM

REFERENCE

AUTHORS

TITLE

JOURNAL

COMMENT

CD559608 477 bp mRNA linear EST 26-NOV-2003
 AGENCOURT 14496997 NIH MGC 195 Homo sapiens cDNA clone
 IMAGE:6971867 5', mRNA sequence.
 CD559608
 CD559608.2 GI:38558942
 EST.
 Homo sapiens (human)
 Homo sapiens
 Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
 Mammalia; Eutheria; Primates; Catarrhini; Homiidae; Homo.
 NIH-MGC <http://mgc.nci.nih.gov/>.
 National Institutes of Health, Mammalian Gene Collection (MGC)
 Unpublished (1999)
 On Jun 10, 2003 this sequence version replaced gi:31585676.
 Contact: Daniela S. Gerhard, Ph.D.
 Office of Cancer Genomics
 National Cancer Institute / NIH
 Bldg. 31 Rm10A07 Bethesda, MD 20892
 Email: cgasbs-remail.nih.gov
 Tissue Procurement: Narayan Bhat
 cDNA Library Preparation: Bhat Laboratory
 cDNA Library Arrayed by: The I.M.A.G.E. Consortium (LLNL)
 DNA Sequencing by: Agencourt Bioscience Corporation
 Clone distribution: MGC clone distribution information can be
 found through the I.M.A.G.E. Consortium/LLNL at:
<http://image.llnl.gov>
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 available from NCBI's RefSeq). Template for PCR is cDNA
 derived from either pooled cytoplasmic polyA RNA from 30
 cells lines or pooled total RNA from 10 different tissues
 (from BD Biosciences/Clontech and Washington University).
 PCR products are directionally cloned into the loxp sites
 of the pDNR-Dual vector. Library constructed by Dr.
 Narayan Bhat, Earl Bere III and Hongling Liao (Gene
 Expression Laboratory, Research Technology Program, SAIC
 Frederick, NCI-Frederick, Frederick, MD 21702). For

information on which gene each clone represents, please
 visit our anonymous ftp site at
ftp://image.llnl.gov/image/rearrayed_plates/IRBK.presv.dat
 a Note: this is a NIH_MGC Library."

ORIGIN

Query Match 3.6%; Score 22; DB 6; Length 473;
 Best Local Similarity 100.0%; Pred.No. 5;
 Matches 22; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 45 ATTGAGTTGCTAGCTCTTGG 66
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 Db 57 ATTGAGTTGCTAGCTCTTGG 78

Search completed: August 9, 2005, 00:13:18
 Job time : 2594.72 secs

GenCore version 5.1.6
Copyright (c) 1993 - 2005 Compugen Ltd.

OM nucleic - nucleic search, using sw model

Run on: August 7, 2005, 08:50:30 ; Search time 124.226 Seconds
(without alignment)
8034.812 Million cell updates/sec

Title: US-10-787-382-4
Perfect score: 610
Sequence: 1 caagcgaacacgcgaacatt.....acagatgaataatttgcag 610

Scoring table: IDENTITY NUC
Gapop 10.0, Gapext 1.0

Searched: 1202784 seqs, 81813359 residues

Total number of hits satisfying chosen parameters: 2405568

Minimum DB seq length: 0
Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries

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Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

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4	610	100.0	610	US-09-451-527-82	Sequence 82, Appl
5	402	65.9	402	US-09-322-409-83	Sequence 83, Appl
6	402	65.9	402	US-09-322-409-84	Sequence 84, Appl
7	402	65.9	402	US-09-451-527-83	Sequence 83, Appl
8	402	65.9	402	US-09-451-527-84	Sequence 84, Appl
9	401.8	65.9	405	US-09-371-615A-1	Sequence 1, Appl
10	379	62.1	816	US-09-079-839-2	Sequence 2, Appl
11	377.4	61.9	816	US-09-023-655-1236	Sequence 85, Appl
12	345	56.6	345	US-09-322-409-85	Sequence 87, Appl
13	345	56.6	345	US-09-322-409-87	Sequence 87, Appl
14	345	56.6	345	US-09-451-527-85	Sequence 87, Appl
15	345	56.6	345	US-09-451-527-87	Sequence 87, Appl
16	217.6	35.7	1534	US-08-629-643A-4	Sequence 4, Appl
17	217.6	35.7	1534	US-09-155-884-4	Sequence 1, Appl
18	207.4	34.0	377	US-09-180-864-1	Sequence 33, Appl
19	181.4	29.7	375	US-09-556-818-33	Sequence 33, Appl
20	178.6	29.3	357	US-09-556-818-35	Sequence 27, Appl
21	172.2	28.2	381	US-09-556-818-27	Sequence 27, Appl
22	168.6	27.6	375	US-09-556-818-37	Sequence 39, Appl
23	166.4	27.3	399	US-09-556-818-39	Sequence 43, Appl
24	166	27.2	444	US-09-556-818-43	Sequence 31, Appl
25	163.4	26.8	393	US-09-556-818-31	Sequence 29, Appl
26	162.2	26.6	375	US-09-556-818-29	Sequence 41, Appl
27	161.6	26.5	393	US-09-556-818-41	

28	152.4	25.0	3230	3	US-09-280-799-78	Sequence 78, Appl
29	152.4	25.0	3230	6	5324640-1	Patent No. 5324640
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31	149.2	24.5	351	4	US-09-556-818-51	Sequence 51, Appl
32	145	23.8	393	4	US-09-556-818-55	Sequence 55, Appl
33	144.8	23.7	375	4	US-09-556-818-45	Sequence 45, Appl
34	144.8	23.7	375	4	US-09-556-818-59	Sequence 59, Appl
35	141.8	23.2	387	4	US-09-556-818-57	Sequence 57, Appl
36	140.8	23.1	369	4	US-09-556-818-53	Sequence 53, Appl
37	126.4	20.7	369	4	US-09-556-818-47	Sequence 47, Appl
38	124.4	20.4	387	4	US-09-556-818-49	Sequence 49, Appl
39	90.6	14.9	6727	3	US-08-629-643A-5	Sequence 5, Appl
40	90.6	14.9	6727	3	US-09-280-799-1	Sequence 1, Appl
41	90.6	14.9	6727	3	US-09-155-884-5	Sequence 5, Appl
42	58.2	9.5	7218	1	US-08-232-463-14	Sequence 14, Appl
43	45.8	7.5	57	4	US-09-556-818-61	Sequence 61, Appl
44	42.2	6.9	47	1	US-08-466-852-2	Sequence 2, Appl
45	39.4	6.5	1141	4	US-09-806-708B-22	Sequence 22, Appl

ALIGNMENTS

RESULT 1
US-09-322-409-80
Sequence 80, Application US/09322409
Patent No. 6471957
GENERAL INFORMATION:
APPLICANT: Sim, Gek-Ke
APPLICANT: Yang, Shumin
APPLICANT: Drelitz, Matthew J.
APPLICANT: Wonderling, Raman S.
TITLE OF INVENTION: CANINE AND FELINE IMMUNOREGULATORY PROTEINS, NUCLEIC
FILE REFERENCE: IM-2-C1
CURRENT APPLICATION NUMBER: US/09/322,409
EARLIER FILING DATE: 1999-05-28
EARLIER APPLICATION NUMBER: 60/087,306
EARLIER FILING DATE: 1998-05-29
NUMBER OF SEQ ID NOS: 154
SOFTWARE: Patent Ver. 2.0
SEQ ID NO: 80
LENGTH: 610
TYPE: DNA
ORGANISM: Canis familiaris
FEATURE:
NAME/KEY: CDS
LOCATION: (29)..(430)
US-09-322-409-80
Query Match
Best Local Similarity 100.0%; Pred. No. 9.2e-188; Length 610;
Matches 610; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
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1 CAAGCAAAACATGACATTTGACAGCTATGAGATCTTCTGAATTGAGTTGCTAGC 60
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181 GATTCCTACTCTGTAATAATAATCAACAATGCTGATTAAGAGATTTTTCAGGGTAT 240
181 GATTCCTACTCTGTAATAATAATCAACAATGCTGATTAAGAGATTTTTCAGGGTAT 240
241 AGACACATTGAGAACCAACCTGCCACGGGAGGCTGTGATTAATCTATTCACAACTT 300
241 AGACACATTGAGAACCAACCTGCCACGGGAGGCTGTGATTAATCTATTCACAACTT 300

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QY 301 GTCTTTAATAAAGAACACATAGAGCCCAAAAAAGGTGTGCAAGAGAAAGATGAG 360
DB 301 GTCTTTAATAAAGAACACATAGAGCCCAAAAAAGGTGTGCAAGAGAAAGATGAG 360
QY 361 AGTGACAAAGTCTTGAATCTGCACTGCAAGTATTTCTTGCTGTATTAACAACCGAGTGGAC 420
DB 361 AGTGACAAAGTCTTGAATCTGCACTGCAAGTATTTCTTGCTGTATTAACAACCGAGTGGAC 420
QY 421 ACCGAAAGTTGAGAACAAACCGGCTTATTTGTAGTGAAGATTTTGGAGAAAGATGGTTT 480
DB 421 ACCGAAAGTTGAGAACAAACCGGCTTATTTGTAGTGAAGATTTTGGAGAAAGATGGTTT 480
QY 481 TTGGCGATGAGAAATGAGGGCCAAACCAAGTAGGGACTTAATGGCCAGTATACTAAGC 540
DB 481 TTGGCGATGAGAAATGAGGGCCAAACCAAGTAGGGACTTAATGGCCAGTATACTAAGC 540
QY 541 TTGAGAGACAAAGTAATATTTTGAAGCATCTCTACTATTATATCACTTCAACAGATGAAA 600
DB 541 TTGAGAGACAAAGTAATATTTTGAAGCATCTCTACTATTATATCACTTCAACAGATGAAA 600
QY 601 TATATTTGAG 610
DB 601 TATATTTGAG 610
```

RESULT 2

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US-09-322-409-82/c
; Sequence 82, Application US/09322409
; Patent No. 6471957
; GENERAL INFORMATION:
; APPLICANT: Sim, Gek-kee
; APPLICANT: Yang, Shumin
; APPLICANT: Dreitz, Matthew J.
; APPLICANT: Mondelring, Ramani S.
; TITLE OF INVENTION: CANINE AND FELINE IMMUNOREGULATORY PROTEINS, NUCLEIC
; TITLE OF INVENTION: ACID MOLECULES, AND USES THEREOF
; FILE REFERENCE: IM-2-C1
; CURRENT APPLICATION NUMBER: US/09/322,409
; CURRENT FILING DATE: 1999-05-28
; EARLIER APPLICATION NUMBER: 60/087,306
; EARLIER FILING DATE: 1998-05-29
; NUMBER OF SEQ ID NOS: 154
; SOFTWARE: Patentin Ver. 2.0
; SEQ ID NO 82
; LENGTH: 610
; TYPE: DNA
; ORGANISM: Canis familiaris
US-09-322-409-82
```

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Query Match 100.0%; Score 610; DB 4; Length 610;
Best Local Similarity 100.0%; Pred. No. 9, 2e-188;
Matches 610; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
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QY 1 CAAGGCAAAACATGAACTTTGAGAGCTATGAGATGCTTGTGAATTTGAGTTGCTAGC 60
DB 610 CAAGGCAAAACATGAACTTTGAGAGCTATGAGATGCTTGTGAATTTGAGTTGCTAGC 551
QY 61 TCTTGGGGCTGCGCTATGTTTCTGCTTGTGCTGTAGAAAATCCCATGAACTGAGTGGC 120
DB 550 TCTTGGGGCTGCGCTATGTTTCTGCTTGTGCTGTAGAAAATCCCATGAACTGAGTGGC 491
QY 121 AGAGACCTTGACACTGCTCTCCACTCATGCAACTTGGCTGATAGGCGATGGAACTGAT 180
DB 490 AGAGACCTTGACACTGCTCTCCACTCATGCAACTTGGCTGATAGGCGATGGAACTGAT 431
QY 181 GATTCTACTCTCTGAAAAATAAAAATCAACCACTGTGATTAAGAAAGTTTTCAGGGTAT 240
DB 430 GATTCTACTCTCTGAAAAATAAAAATCAACCACTGTGATTAAGAAAGTTTTCAGGGTAT 371
QY 241 AGAGACCTTGAGAAACCAACCTGCGCCACGCGGAGAGCTGTGATTAACATATTCAAAATT 300
DB 370 AGAGACCTTGAGAAACCAACCTGCGCCACGCGGAGAGCTGTGATTAACATATTCAAAATT 311
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QY 301 GTCTTTAATAAAGAACACATAGAGCCCAAAAAAGGTGTGCAAGAGAAAGATGAG 360
DB 310 GTCTTTAATAAAGAACACATAGAGCCCAAAAAAGGTGTGCAAGAGAAAGATGAG 251
QY 361 AGTGACAAAGTCTTGAATCTGCACTGCAAGTATTTCTTGCTGTATTAACAACCGAGTGGAC 420
DB 250 AGTGACAAAGTCTTGAATCTGCACTGCAAGTATTTCTTGCTGTATTAACAACCGAGTGGAC 191
QY 421 ACCGAAAGTTGAGAACAAACCGGCTTATTTGTAGTGAAGATTTTGGAGAAAGATGGTTT 480
DB 190 ACCGAAAGTTGAGAACAAACCGGCTTATTTGTAGTGAAGATTTTGGAGAAAGATGGTTT 111
QY 481 TTGGCGATGAGAAATGAGGGCCAAACCAAGTAGGGACTTAATGGCCAGTATACTAAGC 540
DB 130 TTGGCGATGAGAAATGAGGGCCAAACCAAGTAGGGACTTAATGGCCAGTATACTAAGC 71
QY 541 TTGAGAGACAAAGTAATATTTTGAAGCATCTCTACTATTATATCACTTCAACAGATGAAA 600
DB 70 TTGAGAGACAAAGTAATATTTTGAAGCATCTCTACTATTATATCACTTCAACAGATGAAA 11
QY 601 TATATTTGAG 610
DB 10 TATATTTGAG 1
```

RESULT 3

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US-09-451-527-80
; Sequence 80, Application US/09451527
; Patent No. 6482403
; GENERAL INFORMATION:
; APPLICANT: Sim, Gek-kee
; APPLICANT: Yang, Shumin
; APPLICANT: Dreitz, Matthew J.
; APPLICANT: Mondelring, Ramani S.
; TITLE OF INVENTION: CANINE AND FELINE IMMUNOREGULATORY PROTEINS, NUCLEIC
; TITLE OF INVENTION: ACID MOLECULES, AND USES THEREOF
; FILE REFERENCE: IM-2-C2
; CURRENT APPLICATION NUMBER: US/09/451,527
; CURRENT FILING DATE: 1999-12-01
; EARLIER APPLICATION NUMBER: 09/322,409
; EARLIER FILING DATE: 1999-05-28
; EARLIER APPLICATION NUMBER: 60/087,306
; EARLIER FILING DATE: 1998-05-29
; NUMBER OF SEQ ID NOS: 174
; SOFTWARE: Patentin Ver. 2.0
; SEQ ID NO 80
; LENGTH: 610
; TYPE: DNA
; ORGANISM: Canis familiaris
; FEATURE:
; NAME/KEY: CDS
; LOCATION: (29)..(430)
US-09-451-527-80
```

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Query Match 100.0%; Score 610; DB 4; Length 610;
Best Local Similarity 100.0%; Pred. No. 9, 2e-188;
Matches 610; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
```

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QY 1 CAAGGCAAAACATGAACTTTGAGAGCTATGAGAAATGCTTGTGAATTTGAGTTGCTAGC 60
DB 1 CAAGGCAAAACATGAACTTTGAGAGCTATGAGAAATGCTTGTGAATTTGAGTTGCTAGC 60
QY 61 TCTTGGGGCTGCGCTATGTTTCTGCTTGTGCTGTAGAAAATCCCATGAACTGAGTGGC 120
DB 61 TCTTGGGGCTGCGCTATGTTTCTGCTTGTGCTGTAGAAAATCCCATGAACTGAGTGGC 120
QY 121 AGAGACCTTGACACTGCTCTCCACTCATGCAACTTGGCTGATAGGCGATGGAACTGAT 180
DB 121 AGAGACCTTGACACTGCTCTCCACTCATGCAACTTGGCTGATAGGCGATGGAACTGAT 180
QY 181 GATTCTACTCTCTGAAAAATAAAAATCAACCACTGTGATTAAGAAAGTTTTCAGGGTAT 240
DB 181 GATTCTACTCTCTGAAAAATAAAAATCAACCACTGTGATTAAGAAAGTTTTCAGGGTAT 240
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Db 181 GATTCTACTCTCGAATAAATAATCAACAAGTGTGATTAAGAAGTTTTCAGGGTAT 240
Qy 241 AGACACATTGAAGAACCAACTGCGCCAGGGAGGCTGTGATTAACATATCCAAACTT 300
Db 241 AGACACATTGAAGAACCAACTGCGCCAGGGAGGCTGTGATTAACATATCCAAACTT 300
Qy 301 GTCTTTAATAAAGAACACATAGAGCGCCAAAAGGAGTGTGATTAACATATCCAAACTT 360
Db 301 GTCTTTAATAAAGAACACATAGAGCGCCAAAAGGAGTGTGATTAACATATCCAAACTT 360
Qy 361 AGTACAAAGTTCTTACCTAGCTACCTGCAAGTATTTCTTGATTAATAACCGAGTGAC 420
Db 361 AGTACAAAGTTCTTACCTAGCTACCTGCAAGTATTTCTTGATTAATAACCGAGTGAC 420
Qy 421 ACCGGAAGTTGAGAACAAACCGGCTTATGTGATGAGAAATTTTGAGAAATGGTTT 480
Db 421 ACCGGAAGTTGAGAACAAACCGGCTTATGTGATGAGAAATTTTGAGAAATGGTTT 480
Qy 481 TTGGCGATGAGATGAGGCGCAACCAAGTAGGAGCTTAATGGCCAGTAACTAAGC 540
Db 481 TTGGCGATGAGATGAGGCGCAACCAAGTAGGAGCTTAATGGCCAGTAACTAAGC 540
Qy 541 TTGAGACAAAGTAAATATTTTACGCACTCTACTTATCACTTACACAGATGAAA 600
Db 541 TTGAGACAAAGTAAATATTTTACGCACTCTACTTATCACTTACACAGATGAAA 600
Qy 601 TATATTGAG 610
Db 601 TATATTGAG 610

RESULT 4

US-09-451-527-82/c
; Sequence 82, Application US/09451527
; Patent No. 6482403
; GENERAL INFORMATION:
; APPLICANT: Sim, Gek-Ke
; APPLICANT: Yang, Shumlin
; APPLICANT: Drelitz, Matthew J.
; APPLICANT: Wonderling, Ramani S.
; TITLE OF INVENTION: CANINE AND FELINE IMMUNOREGULATORY PROTEINS, NUCLEIC
; FILE REFERENCE: IM-2-C2
; CURRENT APPLICATION NUMBER: US/09/451,527
; CURRENT FILING DATE: 1999-12-01
; EARLIER APPLICATION NUMBER: 09/322,409
; EARLIER FILING DATE: 1999-05-28
; EARLIER APPLICATION NUMBER: 60/087,306
; EARLIER FILING DATE: 1998-05-29
; NUMBER OF SEQ ID NOS: 174
; SOFTWARE: PatentIn Ver. 2.0
; SEQ ID NO 82
; LENGTH: 610
; TYPE: DNA
; ORGANISM: Canis familiaris
US-09-451-527-82

Query Match 100.0%; Score 610; DB 4; Length 610;
Best Local Similarity 100.0%; Pred. No. 9.2e-188;
Matches 610; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 CAAGGCAAAACGTGAACATTTTCAGAGCTATGAGAAATGCTTCTGAATTTGAGTTGCTAGC 60
Db 610 CAAGGCAAAACGTGAACATTTTCAGAGCTATGAGAAATGCTTCTGAATTTGAGTTGCTAGC 551
Qy 61 TCTTGGGCGCTGCTATGTTTCTGCTTGTGATGAATAATCCATGATAGATGCTGCGC 120
Db 550 TCTTGGGCGCTGCTATGTTTCTGCTTGTGATGAATAATCCATGATAGATGCTGCGC 491
Qy 121 AGAGACTTGAACATGCTCTCCATCATCGAACTTTGGCTGATAGGCGATGGGAACCTGAT 180
Db 490 AGAGACTTGAACATGCTCTCCATCATCGAACTTTGGCTGATAGGCGATGGGAACCTGAT 431

Qy 181 GATTCTACTCTCGAATAAATAATCAACAAGTGTGATTAAGAAGTTTTCAGGGTAT 240
Db 430 GATTCTACTCTCGAATAAATAATCAACAAGTGTGATTAAGAAGTTTTCAGGGTAT 371
Qy 241 AGACACATTGAAGAACCAACTGCGCCAGGGAGGCTGTGATTAACATATCCAAACTT 300
Db 241 AGACACATTGAAGAACCAACTGCGCCAGGGAGGCTGTGATTAACATATCCAAACTT 311
Qy 370 AGACACATTGAAGAACCAACTGCGCCAGGGAGGCTGTGATTAACATATCCAAACTT 311
Db 301 GTCTTTAATAAAGAACACATAGAGCGCCAAAAGGAGTGTGATTAACATATCCAAACTT 360
Qy 310 GTCTTTAATAAAGAACACATAGAGCGCCAAAAGGAGTGTGATTAACATATCCAAACTT 251
Db 361 AGTACAAAGTTCTTACCTAGCTACCTGCAAGTATTTCTTGATTAATAACCGAGTGAC 420
Qy 250 AGTACAAAGTTCTTACCTAGCTACCTGCAAGTATTTCTTGATTAATAACCGAGTGAC 191
Db 421 ACCGGAAGTTGAGAACAAACCGGCTTATGTGATGAGAAATTTTGAGAAATGGTTT 480
Qy 190 ACCGGAAGTTGAGAACAAACCGGCTTATGTGATGAGAAATTTTGAGAAATGGTTT 131
Db 481 TTGGCGATGAGATGAGGCGCAACCAAGTAGGAGCTTAATGGCCAGTAACTAAGC 540
Qy 130 TTGGCGATGAGATGAGGCGCAACCAAGTAGGAGCTTAATGGCCAGTAACTAAGC 71
Db 541 TTGAGACAAAGTAAATATTTTACGCACTCTACTTATCACTTACACAGATGAAA 600
Qy 70 TTGAGACAAAGTAAATATTTTACGCACTCTACTTATCACTTACACAGATGAAA 11
Qy 601 TATATTGAG 610
Db 10 TATATTGAG 1

RESULT 5

US-09-322-409-83
; Sequence 83, Application US/09322409
; Patent No. 6471957
; GENERAL INFORMATION:
; APPLICANT: Sim, Gek-Ke
; APPLICANT: Yang, Shumlin
; APPLICANT: Drelitz, Matthew J.
; APPLICANT: Wonderling, Ramani S.
; TITLE OF INVENTION: CANINE AND FELINE IMMUNOREGULATORY PROTEINS, NUCLEIC
; FILE REFERENCE: IM-2-C1
; CURRENT APPLICATION NUMBER: US/09/322,409
; CURRENT FILING DATE: 1999-05-28
; EARLIER APPLICATION NUMBER: 60/087,306
; EARLIER FILING DATE: 1998-05-29
; NUMBER OF SEQ ID NOS: 154
; SOFTWARE: PatentIn Ver. 2.0
; SEQ ID NO 83
; LENGTH: 402
; TYPE: DNA
; ORGANISM: Canis familiaris
US-09-322-409-83

Query Match 65.9%; Score 402; DB 4; Length 402;
Best Local Similarity 100.0%; Pred. No. 2.7e-120;
Matches 402; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 29 ATGGAATGCTTCTGAAATTTGAGTTTGTAGCTGCTTGGGCGCTGCTATGTTTTCGCCCTT 88
Db 1 ATGGAATGCTTCTGAAATTTGAGTTTGTAGCTGCTTGGGCGCTGCTATGTTTTCGCCCTT 60
Qy 89 GCTGTAGAAAATCCCATGAAATAGACTGTGCAAGACCTTGAACATGCTCTCCACTCAT 148
Db 61 GCTGTAGAAAATCCCATGAAATAGACTGTGCAAGACCTTGAACATGCTCTCCACTCAT 120
Qy 149 CGAATCTGGCTGATAGGCGATGGGAACCTGATGATTTCTACTCTGAAAAATAAATAC 208
Db 121 CGAATCTGGCTGATAGGCGATGGGAACCTGATGATTTCTACTCTGAAAAATAAATAC 180

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QY 209 CAACGTGCACTTAAGAGTTTTCAGGGTATAGACATTTGAAGAACCAACTGCCAC 268
DB 181 CAACGTGCACTTAAGAGTTTTCAGGGTATAGACATTTGAAGAACCAACTGCCAC 240
QY 269 GGGAGGCTGTGATTAACCTTCCAAACTGCTTTATTAAGAACCATAGAGCG 328
DB 241 GGGAGGCTGTGATTAACCTTCCAAACTGCTTTATTAAGAACCATAGAGCG 300
QY 329 CAAAAAAGGTGTGAGAGAGAAATGAGAGTGAACAAGTTCTAGACTACCTGCAA 388
DB 301 CAAAAAAGGTGTGAGAGAGAAATGAGAGTGAACAAGTTCTAGACTACCTGCAA 360
QY 389 GTATTTCTTGTTATTAACACCGAGTGAACACCGGAAAGT 430
DB 361 GTATTTCTTGTTATTAACACCGAGTGAACACCGGAAAGT 402
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RESULT 6
US-09-322-409-84/c
; Sequence 84, Application US/09322409
; Patent No. 6471957
; GENERAL INFORMATION:
; APPLICANT: Sim, Gek-Ke
; APPLICANT: Yang, Shumlin
; APPLICANT: Drelitz, Matthew J.
; APPLICANT: Wonderling, Ramani S.
; TITLE OF INVENTION: CANINE AND FELINE IMMUNOREGULATORY PROTEINS, NUCLEIC
; FILE REFERENCE: IM-2-C1
; CURRENT APPLICATION NUMBER: US/09/322,409
; EARLIER FILING DATE: 1999-05-28
; EARLIER APPLICATION NUMBER: 60/087,306
; EARLIER FILING DATE: 1998-05-29
; NUMBER OF SEQ ID NOS: 154
; SOFTWARE: PatentIn Ver. 2.0
; SEQ ID NO 84
; LENGTH: 402
; TYPE: DNA
; ORGANISM: Canis familiaris
US-09-322-409-84
```

```
Query Match 65.9%; Score 402; DB 4; Length 402;
Best Local Similarity 100.0%; Pred. No. 2,7e-120;
Matches 402; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 29 ATGAGATGCTTCTGAATTTGAGTTGCTAGCTCTTGCGGCTGCTATGTTCTGCTTT 88
DB 402 ATGAGATGCTTCTGAATTTGAGTTGCTAGCTCTTGCGGCTGCTATGTTCTGCTTT 343
QY 89 GCTGTAGAAAATCCCATGAATAGACTGTGGCAGAGACCTTGAACCTGCTCTCCACTCAT 148
DB 342 GCTGTAGAAAATCCCATGAATAGACTGTGGCAGAGACCTTGAACCTGCTCTCCACTCAT 283
QY 149 CGAATCTGGCTGATAGGCGATGGAACCTGATATCTCTACTCTCTGAAAAATTAATATCAC 208
DB 282 CGAATCTGGCTGATAGGCGATGGAACCTGATATCTCTACTCTCTGAAAAATTAATATCAC 223
QY 209 CAACGTGCACTTAAGAGTTTTCAGGGTATAGACATTTGAAGAACCAACTGCCAC 268
DB 222 CAACGTGCACTTAAGAGTTTTCAGGGTATAGACATTTGAAGAACCAACTGCCAC 163
QY 269 GGGAGGCTGTGATTAACCTTCCAAACTGCTTTATTAAGAACCATAGAGCG 328
DB 162 GGGAGGCTGTGATTAACCTTCCAAACTGCTTTATTAAGAACCATAGAGCG 103
QY 329 CAAAAAAGGTGTGAGAGAGAAATGAGAGTGAACAAGTTCTAGACTACCTGCAA 388
DB 102 CAAAAAAGGTGTGAGAGAGAAATGAGAGTGAACAAGTTCTAGACTACCTGCAA 43
QY 389 GTATTTCTTGTTATTAACACCGAGTGAACACCGGAAAGT 430
DB 42 GTATTTCTTGTTATTAACACCGAGTGAACACCGGAAAGT 1
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RESULT 7
US-09-451-527-83
; Sequence 83, Application US/09451527
; Patent No. 6482403
; GENERAL INFORMATION:
; APPLICANT: Sim, Gek-Ke
; APPLICANT: Yang, Shumlin
; APPLICANT: Drelitz, Matthew J.
; APPLICANT: Wonderling, Ramani S.
; TITLE OF INVENTION: CANINE AND FELINE IMMUNOREGULATORY PROTEINS, NUCLEIC
; FILE REFERENCE: IM-2-C2
; CURRENT APPLICATION NUMBER: US/09/451,527
; EARLIER FILING DATE: 1999-12-01
; EARLIER APPLICATION NUMBER: 09/322,409
; EARLIER FILING DATE: 1999-05-28
; EARLIER APPLICATION NUMBER: 60/087,306
; EARLIER FILING DATE: 1998-05-29
; NUMBER OF SEQ ID NOS: 174
; SOFTWARE: PatentIn Ver. 2.0
; SEQ ID NO 83
; LENGTH: 402
; TYPE: DNA
; ORGANISM: Canis familiaris
US-09-451-527-83
```

```
Query Match 65.9%; Score 402; DB 4; Length 402;
Best Local Similarity 100.0%; Pred. No. 2,7e-120;
Matches 402; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 29 ATGAGATGCTTCTGAATTTGAGTTGCTAGCTCTTGCGGCTGCTATGTTCTGCTTT 88
DB 1 ATGAGATGCTTCTGAATTTGAGTTGCTAGCTCTTGCGGCTGCTATGTTCTGCTTT 60
QY 89 GCTGTAGAAAATCCCATGAATAGACTGTGGCAGAGACCTTGAACCTGCTCTCCACTCAT 148
DB 61 GCTGTAGAAAATCCCATGAATAGACTGTGGCAGAGACCTTGAACCTGCTCTCCACTCAT 120
QY 149 CGAATCTGGCTGATAGGCGATGGAACCTGATATCTCTACTCTGAAAAATTAATATCAC 208
DB 121 CGAATCTGGCTGATAGGCGATGGAACCTGATATCTCTACTCTGAAAAATTAATATCAC 180
QY 209 CAACGTGCACTTAAGAGTTTTCAGGGTATAGACATTTGAAGAACCAACTGCCAC 268
DB 181 CAACGTGCACTTAAGAGTTTTCAGGGTATAGACATTTGAAGAACCAACTGCCAC 240
QY 269 GGGAGGCTGTGATTAACCTTCCAAACTGCTTTATTAAGAACCATAGAGCG 328
DB 241 GGGAGGCTGTGATTAACCTTCCAAACTGCTTTATTAAGAACCATAGAGCG 300
QY 329 CAAAAAAGGTGTGAGAGAGAAATGAGAGTGAACAAGTTCTAGACTACCTGCAA 388
DB 301 CAAAAAAGGTGTGAGAGAGAAATGAGAGTGAACAAGTTCTAGACTACCTGCAA 360
QY 389 GTATTTCTTGTTATTAACACCGAGTGAACACCGGAAAGT 430
DB 361 GTATTTCTTGTTATTAACACCGAGTGAACACCGGAAAGT 402
```

```
RESULT 8
US-09-451-527-84/c
; Sequence 84, Application US/09451527
; Patent No. 6482403
; GENERAL INFORMATION:
; APPLICANT: Sim, Gek-Ke
; APPLICANT: Yang, Shumlin
; APPLICANT: Drelitz, Matthew J.
; APPLICANT: Wonderling, Ramani S.
; TITLE OF INVENTION: CANINE AND FELINE IMMUNOREGULATORY PROTEINS, NUCLEIC
; FILE REFERENCE: IM-2-C2
; CURRENT APPLICATION NUMBER: US/09/451,527
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CURRENT FILING DATE: 1999-12-01
EARLIER APPLICATION NUMBER: 09/322,409
EARLIER FILING DATE: 1999-05-28
EARLIER APPLICATION NUMBER: 60/087,306
EARLIER FILING DATE: 1998-05-29
NUMBER OF SEQ ID NOS: 174
SOFTWARE: Patent In Ver. 2.0
SEQ ID NO 84
LENGTH: 402
TYPE: DNA
ORGANISM: Canis familiaris
US-09-451-527-84

Query Match 65.9%; Score 402; DB 4; Length 402;
Best Local Similarity 100.0%; Pred. No. 2,7e-120;
Matches 402; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 29 ATGAGATGCTTCTGAATTTGAGTTTCTAGCTCTTGCGGCTGCTATGTTTCTGCTTT 88
DB 402 ATGAGATGCTTCTGAATTTGAGTTTCTAGCTCTTGCGGCTGCTATGTTTCTGCTTT 343
QY 89 GCTGTAGAAATCCCATTAATAGACTGGGCAAGACCTTGAACCTCTCCACTCAT 148
DB 342 GCTGTAGAAATCCCATTAATAGACTGGGCAAGACCTTGAACCTCTCCACTCAT 283
QY 149 CGAATCTGCTGATAGGCGATGGAACTGATGATTTCTACTCCCTGAATAATTAATAC 208
DB 282 CGAATCTGCTGATAGGCGATGGAACTGATGATTTCTACTCCCTGAATAATTAATAC 223
QY 209 CAATCTGCTATTAAGAAATTTTTCAGGCTATAGACATTTGAAGAACCAATGCCAC 268
DB 222 CAATCTGCTATTAAGAAATTTTTCAGGCTATAGACATTTGAAGAACCAATGCCAC 163
QY 269 GGGAGGCTGTGATTAATCTATTTCCAAATCTTTTAAATTAAGAACCATAGAGCG 328
DB 162 GGGAGGCTGTGATTAATCTATTTCCAAATCTTTTAAATTAAGAACCATAGAGCG 103
QY 329 CAAAAAAGGTGTGAGAGAAAGATGAGAGTGAACAAAGTTCTGACTGACTGCA 388
DB 102 CAAAAAAGGTGTGAGAGAAAGATGAGAGTGAACAAAGTTCTGACTGACTGCA 43
QY 389 GTATTTCTGTGTATTAATTAACACCGAGTGAACCCGAAAGT 430
DB 42 GTATTTCTGTGTATTAATTAACACCGAGTGAACCCGAAAGT 1

RESULT 9
US-09-371-615A-1
Sequence 1, Application US/09371615A
Patent No. 6537781
GENERAL INFORMATION:
APPLICANT: IDEXX LABORATORIES
TITLE OF INVENTION: METHODS AND COMPOSITIONS CONCERNING
FILE REFERENCE: 03604001700US00
CURRENT APPLICATION NUMBER: US/09/371,615A
CURRENT FILING DATE: 1999-08-10
NUMBER OF SEQ ID NOS: 8
SOFTWARE: FastSeq for Windows Version 3.0
SEQ ID NO 1
LENGTH: 405
TYPE: DNA
ORGANISM: Canis familiaris
US-09-371-615A-1

Query Match 65.9%; Score 401.8; DB 4; Length 405;
Best Local Similarity 99.5%; Pred. No. 3.2e-120;
Matches 403; Conservative 0; Mismatches 2; Indels 0; Gaps 0;

QY 29 ATGAGATGCTTCTGAATTTGAGTTTCTAGCTCTTGCGGCTGCTATGTTTCTGCTTT 88
DB 1 ATGAGATGCTTCTGAATTTGAGTTTCTAGCTCTTGCGGCTGCTATGTTTCTGCTTT 60

QY 89 GCTGTAGAAATCCCATTAATAGACTGGGCAAGACCTTGAACCTCTCCACTCAT 148
DB 61 GCTGTAGAAATCCCATTAATAGACTGGGCAAGACCTTGAACCTCTCCACTCAT 120
QY 149 CGAATCTGCTGATAGGCGATGGAACTTGTATTTCTACTCTGAAAAATTAATAC 208
DB 121 CGAATCTGCTGATAGGCGATGGAACTTGTATTTCTACTCTGAAAAATTAATAC 180
QY 209 CAATCTGCTATTAAGAAATTTTTCAGGCTATAGACATTTGAAGAACCAATGCCAC 268
DB 181 CAATCTGCTATTAAGAAATTTTTCAGGCTATAGACATTTGAAGAACCAATGCCAC 240
QY 269 GGGAGGCTGTGATTAATCTATTTCCAAATCTTTTAAATTAAGAACCATAGAGCG 328
DB 241 GGGAGGCTGTGATTAATCTATTTCCAAATCTTTTAAATTAAGAACCATAGAGCG 300
QY 329 CAAAAAAGGTGTGAGAGAAAGATGAGAGTGAACAAAGTTCTGACTGACTGCA 388
DB 301 CAAAAAAGGTGTGAGAGAAAGATGAGAGTGAACAAAGTTCTGACTGACTGCA 360
QY 389 GTATTTCTGTGTATTAATTAACACCGAGTGAACCCGAAAGTGA 433
DB 361 GTATTTCTGTGTATTAATTAACACCGAGTGAACCCGAAAGTGA 405

RESULT 10
US-09-079-839-2

Sequence 2, Application US/09079839
Patent No. 6048726
GENERAL INFORMATION:
APPLICANT: Welman, Joel K.
APPLICANT: Karim, Afeeb S.

TITLE OF INVENTION: INHIBITION OF EOSINOPHILIC INFLAMMATION
FILE REFERENCE: 09998/002001
CURRENT APPLICATION NUMBER: US/09/079,839
CURRENT FILING DATE: 1998-05-15
NUMBER OF SEQ ID NOS: 2
SOFTWARE: FastSeq for Windows Version 3.0
SEQ ID NO 2
LENGTH: 816
TYPE: DNA
ORGANISM: Homo sapiens
US-09-079-839-2

Query Match 62.1%; Score 379; DB 3; Length 816;
Best Local Similarity 79.1%; Pred. No. 1.2e-112;
Matches 463; Conservative 0; Mismatches 120; Indels 2; Gaps 1;

QY 2 AAGCAAACTGTAACATTTTCAGAGCTATGAGATGCTTCTGAATTTGAGTTTCTAGCT 61
DB 18 AAGCAAACTGTAACATTTTCAGAGCTATGAGATGCTTCTGAATTTGAGTTTCTAGCT 77
QY 62 CTGGGCTGCTATGTTTCTGCTTGTGTAGAAAAATCCATGAATGAGTGGTGA 121
DB 78 CTGGGCTGCTATGTTTCTGCTTGTGTAGAAAAATCCATGAATGAGTGGTGA 137
QY 122 GAGACCTTGACATGCTCTCACTCATGAGAACTGGCTGATAGGCGATGGAACTGATG 181
DB 138 GAGACCTTGACATGCTCTCACTCATGAGAACTGGCTGATAGGCGATGGAACTGATG 197
QY 182 ATTCTTCTGCTGAATAATTAATTAACCAACTGATGAATTAAGAAAGTTTTCAGGCTTA 241
DB 198 ATTCTTCTGCTGAATAATTAATTAACCAACTGATGAATTAAGAAAGTTTTCAGGCTTA 257
QY 242 GACACATTAAGAAACCAACTGCCACGGGAGGCTGTGATTAATTAATTAATTAATTA 301
DB 258 GACACATTAAGAAACCAACTGCCACGGGAGGCTGTGATTAATTAATTAATTAATTA 317
QY 302 TCTTTAATTAAGAAACCAATTAAGAGCGCAAAAAAGCTGTGAGAGAAAGATGAGA 361
DB 318 TCTTTAATTAAGAAACCAATTAAGAGCGCAAAAAAGCTGTGAGAGAAAGATGAGA 377
QY 362 GTGACAAAGTTCTAGACTCAAGTATTTCTGTGTATTAATTAACACCGAGTGGACA 421

Db 378 GTAAACCAATTTCTAGACTACCTGCAAGAGTTTGTGTAATGAACACCGAGTGTATA 437
Qy 422 CCGAAAGTTGAGAACAAACCGCTTATTTAGTGAAGATTTTGGAGAAATG--GTT 479
Db 438 ATAGAAAGTTGAGACTAACTGTTTGTGAGCAAGAAAGATTTTGGAGAGAAAGACATT 497
Qy 480 TTTTGGCGATGAGATGAGGCGCCACCAACAGTGAAGGACTTAATGCGCATATTAAGT 539
Db 498 TTACTGAGTGAATGAGAGGCGCAAGAAAGAGTCAGGCTTAATTTCAATATATTAATTA 557
Qy 540 CTTCAGAGACAAAGTAATATTTTCAAGCATCTACTACTTATCA 584
Db 558 CTTCAGAGGAAAGTAATATTTTCAAGCATCTACTACTTATCA 602

RESULT 11
US-09-023-655-1236
Sequence 1236, Application US/09023655
Patent No. 6607879
GENERAL INFORMATION:
APPLICANT: Cocks, Benjamin G.
APPLICANT: Susan G. Stuart
APPLICANT: Jeffrey J. Seilhamer
TITLE OF INVENTION: COMPOSITION FOR THE DETECTION OF BLOOD CELL GENE
NUMBER OF SEQUENCES: 1508
CORRESPONDENCE ADDRESS:
ADDRESSEE: INCYTE PHARMACEUTICALS, INC.
STREET: 3174 PORTER DRIVE
CITY: PALO ALTO
STATE: CALIFORNIA
COUNTRY: USA
ZIP: 94304
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Word Perfect 6.1 for Windows/MS-DOS 6.2
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/09/023,655
FILING DATE: HEREWITH
CLASSIFICATION:
PRIOR APPLICATION DATA:
APPLICATION NUMBER:
FILING DATE:
CLASSIFICATION:
ATTORNEY/AGENT INFORMATION:
NAME: Zeller, Karen J.
REGISTRATION NUMBER: 37,071
REFERENCE/DOCKET NUMBER: PA-0001 US
TELECOMMUNICATION INFORMATION:
TELEPHONE: (650) 855-0555
TELEFAX: (650) 845-4166
INFORMATION FOR SEQ ID NO: 1236:
SEQUENCE CHARACTERISTICS:
LENGTH: 816 base pairs
TYPE: nucleic acid
STRANDEDNESS: single
TOPOLOGY: linear
IMMEDIATE SOURCE:
LIBRARY: GENBANK
CLONE: g288309
US-09-023-655-1236

Query Match 61.9%; Score 377.4; DB 4; Length 816;
Best Local Similarity 79.0%; Pred. No. 3.9e-112;
Matches 46; Conservative 0; Mismatches 121; Indels 2; Gaps 1;
Qy 2 AAGCAAACTGTAATCTAGAGCTATGAGATGCTTCTGATTTGATTTGCTAGCT 61
Db 18 AAGCAAACTGTAATCTAGAGCTATGAGATGCTTCTGATTTGATTTGCTAGCT 77

Qy 62 CTGGGGCTGCTATGTTTCTGCTTGTGTGAAAATCCCATGATAGACTGTGCA 121
Db 78 CTGGAGCTGCTTACGTAATGATGATCCCAAGAAATTCACAACTGATTTGTA 137
Qy 122 GAGACCTTGACATGCTCTGCTCATGCAACTGGCTGATAGCGATGGAACTGATG 181
Db 138 GAGACCTTGACATGCTCTTCTTACTCATGCACTGCTGATGCAATGACCTGAGG 197
Qy 182 ATTCTACTCTGTAATAATAATAATCAACATGTCATTAAGAAGTTTTCAGGTATA 241
Db 198 ATTCCTGCTCTGATTAATAATAATCAACATGTCATTAAGAAGTTTTCAGGTATA 257
Qy 242 GACACATTAAGAACCAAACTGCCCACGGGAGGCTGTGATTAATCTATTCAAAATTG 301
Db 258 GGCACACTGAGAGTCAAACTGTGCAAGGGGCTACTGTGAAAAGACTATTGAAAACCTTG 317
Qy 302 TCTTTAATAAAGAACATAGAGCCCAAAAAAGTGTGACAGAGAAAGATGAGA 361
Db 318 TCTTTAATAAAGAAATATCATTTGACGGCCAAAAAGTGTGAGAGAAAGACGAGA 377
Qy 362 GTGCAAAAGTTCTTACACTACCTGCAAGTATTTCTGTGTAAATAACCGAGTGACA 421
Db 378 GTAAACCAATTTCTAGACTACCTGCAAGAGTTTCTGTGTAAATAACCGAGTGATA 437
Qy 422 CCGAAAGTTGAGAACAAACCGCTTATTTAGTGAAGATTTTGGAGAAATG--GTT 479
Db 438 ATAGAAAGTTGAGACTAACTGTTTGTGACCCAAAGATTTTGAAGAGAGACATT 497
Qy 480 TTTTGGCGATGAGATGAGGCGCCACCAACAGTGAAGGACTTAATGCGCATATTAAGT 539
Db 498 TTACTGAGTGAATGAGAGGCGCCAAAGAGTCAAGCTTATTTCAATATTAATTA 557
Qy 540 CTTCAGAGACAAAGTAATATTTTCAAGCATCTACTACTTATCA 584
Db 558 CTTCAGAGGAAAGTAATATTTTCAAGCATCTACTACTTATCA 602

RESULT 12
US-09-322-409-85
Sequence 85, Application US/09322409
Patent No. 6471957
GENERAL INFORMATION:
APPLICANT: Sim, Gek-kee
APPLICANT: Yang, Shumin
APPLICANT: Dreitz, Matthew J.
APPLICANT: Wonderling, Ramani S.
TITLE OF INVENTION: CANINE AND FELINE IMMUNOREGULATORY PROTEINS, NUCLEIC
FILE REFERENCE: IM-2-CI
CURRENT APPLICATION NUMBER: US/09/322,409
CURRENT FILING DATE: 1999-05-28
EARLIER APPLICATION NUMBER: 60/087,306
EARLIER FILING DATE: 1998-05-29
NUMBER OF SEQ ID NOS: 154
SOFTWARE: PatentIn Ver. 2.0
SEQ ID NO 85
LENGTH: 345
TYPE: DNA
ORGANISM: Canis familiaris
FEATURE:
NAME/KEY: CDS
LOCATION: (1)..(345)
US-09-322-409-85

Query Match 56.6%; Score 345; DB 4; Length 345;
Best Local Similarity 100.0%; Pred. No. 8.2e-102;
Matches 345; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
Qy 86 TTTGCTGTAGAAAATCCATGAAATAGACTGTGCGAGAGACTTGAACCTGCTCCACT 145
Db 1 TTTGCTGTAGAAAATCCATGAAATAGACTGTGCGAGAGACTTGAACCTGCTCCACT 60
Qy 146 CATGAACTTGCTGATGAGCGATGGGAACCTGATATTCCTACTCTGAAAAATTA 205


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Db 61 CATGAAGCTGGCTGATAGGCGATGGAACTGATGATCTTCTACTCTCGAAAAATAAAAAT 120
Qy 206 CACCACTGTGCTATTAAAGAGTTTTCAGGGTATAGACATTTGAGAACCAAACTGCC 265
Db 121 CACCACTGTGCTATTAAAGAGTTTTCAGGGTATAGACATTTGAGAACCAAACTGCC 180
Qy 266 CACGGGAGGCTGTGATTAACCTATTCCTTCTTATTAATTAAGAACACATAGAG 325
Db 181 CACGGGAGGCTGTGATTAACCTATTCCTTCTTATTAATTAAGAACACATAGAG 240
Qy 326 CGCCAAAAAAGAGTGTGCGAGAGAAAGATGAGAGTGAACAAAGTTCTTAGACTCTG 385
Db 241 CGCCAAAAAAGAGTGTGCGAGAGAAAGATGAGAGTGAACAAAGTTCTTAGACTCTG 300
Qy 386 CAAGTATTTCTTGATTAATAACACGAGTGAACCCGGAAGT 430
Db 301 CAAGTATTTCTTGATTAATAACACGAGTGAACCCGGAAGT 345
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RESULT 13

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US-09-322-409-87/c
; Sequence 87, Application US/09322409
; Patent No. 6471957
; GENERAL INFORMATION:
; APPLICANT: Sim, Gek-kee
; APPLICANT: Yang, Shumin
; APPLICANT: Drelitz, Matthew J.
; APPLICANT: Wonderling, Ramani S.
; TITLE OF INVENTION: CANINE AND FELINE IMMUNOREGULATORY PROTEINS, NUCLEIC
; FILE REFERENCE: IM-2-C1
; CURRENT APPLICATION NUMBER: US/09/322,409
; EARLIER FILING DATE: 1999-05-28
; EARLIER APPLICATION NUMBER: 60/087,306
; NUMBER OF SEQ ID NOS: 154
; SOFTWARE: PatentIn Ver. 2.0
; SEQ ID NO 87
; LENGTH: 345
; TYPE: DNA
; ORGANISM: Canis familiaris
US-09-322-409-87
```

Query Match 56.6%; Score 345; DB 4; Length 345;

Best Local Similarity 100.0%; Pred. No. 8.2e-102; Indels 0; Gaps 0;

Matches 345; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

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Qy 86 TTGCTGTAGAAAATCCCATGAATAGACTGTGCGAGAGACCTTGACACTGCTCCACT 145
Db 345 TTGCTGTAGAAAATCCCATGAATAGACTGTGCGAGAGACCTTGACACTGCTCCACT 286
Qy 146 CATGAAGCTGGCTGATAGGCGATGGAACTGATGATCTTCTACTCTGAAAAATAAAAAT 205
Db 285 CATGAAGCTGGCTGATAGGCGATGGAACTGATGATCTTCTACTCTCGAAAAATAAAAAT 226
Qy 206 CACCACTGTGCTATTAAAGAGTTTTCAGGGTATAGACATTTGAGAACCAAACTGCC 265
Db 225 CACCACTGTGCTATTAAAGAGTTTTCAGGGTATAGACATTTGAGAACCAAACTGCC 166
Qy 266 CACGGGAGGCTGTGATTAACCTATTCCTTCTTATTAATTAAGAACACATAGAG 325
Db 165 CACGGGAGGCTGTGATTAACCTATTCCTTCTTATTAATTAAGAACACATAGAG 106
Qy 326 CGCCAAAAAAGAGTGTGCGAGAGAAAGATGAGAGTGAACAAAGTTCTTAGACTCTG 385
Db 105 CGCCAAAAAAGAGTGTGCGAGAGAAAGATGAGAGTGAACAAAGTTCTTAGACTCTG 46
Qy 386 CAAGTATTTCTTGATTAATAACACGAGTGAACCCGGAAGT 430
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RESULT 14

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US-09-451-527-85
; Sequence 85, Application US/09451527
; Patent No. 6482403
; GENERAL INFORMATION:
; APPLICANT: Sim, Gek-kee
; APPLICANT: Yang, Shumin
; APPLICANT: Drelitz, Matthew J.
; APPLICANT: Wonderling, Ramani S.
; TITLE OF INVENTION: CANINE AND FELINE IMMUNOREGULATORY PROTEINS, NUCLEIC
; FILE REFERENCE: IM-2-C2
; CURRENT APPLICATION NUMBER: US/09/451,527
; EARLIER FILING DATE: 1999-12-01
; EARLIER APPLICATION NUMBER: 09/322,409
; EARLIER FILING DATE: 1999-05-28
; EARLIER APPLICATION NUMBER: 60/087,306
; NUMBER OF SEQ ID NOS: 174
; SOFTWARE: PatentIn Ver. 2.0
; SEQ ID NO 85
; LENGTH: 345
; TYPE: DNA
; ORGANISM: Canis familiaris
; FEATURE:
; NAME/KEY: CDS
; LOCATION: (1)..(345)
US-09-451-527-85
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Query Match 56.6%; Score 345; DB 4; Length 345;

Best Local Similarity 100.0%; Pred. No. 8.2e-102; Indels 0; Gaps 0;

Matches 345; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

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Qy 86 TTGCTGTAGAAAATCCCATGAATAGACTGTGCGAGAGACCTTGACACTGCTCCACT 145
Db 1 TTGCTGTAGAAAATCCCATGAATAGACTGTGCGAGAGACCTTGACACTGCTCCACT 60
Qy 146 CATGAAGCTGGCTGATAGGCGATGGAACTGATGATCTTCTACTCTGAAAAATAAAAAT 205
Db 61 CATGAAGCTGGCTGATAGGCGATGGAACTGATGATCTTCTACTCTCGAAAAATAAAAAT 120
Qy 206 CACCACTGTGCTATTAAAGAGTTTTCAGGGTATAGACATTTGAGAACCAAACTGCC 265
Db 121 CACCACTGTGCTATTAAAGAGTTTTCAGGGTATAGACATTTGAGAACCAAACTGCC 180
Qy 266 CACGGGAGGCTGTGATTAACCTATTCCTTCTTATTAATTAAGAACACATAGAG 325
Db 181 CACGGGAGGCTGTGATTAACCTATTCCTTCTTATTAATTAAGAACACATAGAG 240
Qy 326 CGCCAAAAAAGAGTGTGCGAGAGAAAGATGAGAGTGAACAAAGTTCTTAGACTCTG 385
Db 241 CGCCAAAAAAGAGTGTGCGAGAGAAAGATGAGAGTGAACAAAGTTCTTAGACTCTG 300
Qy 386 CAAGTATTTCTTGATTAATAACACGAGTGAACCCGGAAGT 430
Db 301 CAAGTATTTCTTGATTAATAACACGAGTGAACCCGGAAGT 345
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RESULT 15

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US-09-451-527-87/c
; Sequence 87, Application US/09451527
; Patent No. 6482403
; GENERAL INFORMATION:
; APPLICANT: Sim, Gek-kee
; APPLICANT: Yang, Shumin
; APPLICANT: Drelitz, Matthew J.
; APPLICANT: Wonderling, Ramani S.
; TITLE OF INVENTION: CANINE AND FELINE IMMUNOREGULATORY PROTEINS, NUCLEIC
; FILE REFERENCE: IM-2-C2
; CURRENT APPLICATION NUMBER: US/09/451,527
; EARLIER FILING DATE: 1999-12-01
; EARLIER APPLICATION NUMBER: 09/322,409
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; EARLIER FILING DATE: 1999-05-28
; EARLIER APPLICATION NUMBER: 60/087,306
; EARLIER FILING DATE: 1998-05-29
; NUMBER OF SEQ ID NOS: 174
; SOFTWARE: Patentin Ver. 2.0
; SEQ ID NO 87
; LENGTH: 345
; TYPE: DNA
; ORGANISM: Canis familiaris
US-09-451-527-87

Query Match 56.6%; Score 345; DB 4; Length 345;
Best Local Similarity 100.0%; Pred. No. 8.2e-102;
Matches 345; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 86 TTGCTGTAGAAAATCCCATGATAGACTGTGTCAGAGACCTTGACACTGCTCTCCACT 145
DB 345 TTGCTGTAGAAAATCCCATGATAGACTGTGTCAGAGACCTTGACACTGCTCTCCACT 266
QY 146 CATGAACTTGCTGATAGCGGATGGAACTTGATGATTCCTACTCTGAAAATAAAT 205
DB 285 CATGAACTTGCTGATAGCGGATGGAACTTGATGATTCCTACTCTGAAAATAAAT 226
QY 206 CACCACTGTGCATTAAAGAGTTTTCAGGGTATAGACATTGAAGAACCAACTGCC 265
DB 225 CACCACTGTGCATTAAAGAGTTTTCAGGGTATAGACATTGAAGAACCAACTGCC 166
QY 266 CACGGGAGGCTGTGATTAACCTATTCCTTTAATTAAGAACACATAGAG 325
DB 165 CACGGGAGGCTGTGATTAACCTATTCCTTTAATTAAGAACACATAGAG 106
QY 326 CGCCAAAAAAGGTGCGAGAAAGATGAGAGTGAACAAAGTTCTAGACTACCTG 385
DB 105 CGCCAAAAAAGGTGCGAGAAAGATGAGAGTGAACAAAGTTCTAGACTACCTG 46
QY 386 CAAGTATTTCTTGTTATTAACACCGAGTGAACCGGAAAGT 430
DB 45 CAAGTATTTCTTGTTATTAACACCGAGTGAACCGGAAAGT 1

Search completed: August 7, 2005, 18:43:08
Job time : 125.226 secs

GenCore version 5.1.6
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OW nucleic - nucleic search, using bw model

Run on: August 7, 2005, 18:32:58 ; Search time 2938.93 Seconds
(without alignment)
10057.309 Million cell updates/sec

Title: US-10-787-382-4
Perfect score: 610
Sequence: 1 caaggaacaacactgacatc.....acagatgaatatattcag 610

Scoring table: IDENTITY_NUC
Gapop 10.0, Gapext 1.0

Searched: 4708233 seqs, 24227607955 residues

Total number of hits satisfying chosen parameters: 9416466

Minimum DB seq length: 0
Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries

Database : GenEmbl:1:
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2: gb heq:*
3: gb in:*
4: gb om:*
5: gb ov:*
6: gb pat:*
7: gb ph:*
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10: gb ro:*
11: gb sts:*
12: gb sy:*
13: gb un:*
14: gb vl:*

Pred. No. is the number of results predicted by chance to have a
score greater than or equal to the score of the result being printed,
and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	Query Match	Length	ID	Description
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2	610	100.0	610	6	BD211558 Canine an
3	610	100.0	610	6	BD211559 Canine an
4	610	100.0	610	6	AR241536 Sequence
5	610	100.0	610	6	AR241537 Sequence
6	610	100.0	610	6	AR254492 Sequence
7	610	100.0	610	6	AR254493 Sequence
8	405.8	66.5	838	4	AF025436 Felis cat
9	402	65.9	402	6	BD211560 Canine an
10	402	65.9	402	6	BD211561 Canine an
11	402	65.9	402	6	AR241538 Sequence
12	402	65.9	402	6	AR241539 Sequence
13	402	65.9	402	6	AR254494 Sequence
14	402	65.9	402	6	AR254495 Sequence
15	401.8	65.9	405	6	AR300436 Sequence
16	401.8	65.9	405	6	AX083939 Sequence
17	380.6	62.4	816	6	CQ721603 E01639 cDNA encodi
18	379	62.1	816	6	E01639
19	379	62.1	816	6	E13591 cDNA encodi

20	379	62.1	816	9	HS1LSR	X04688 Human mRNA
21	377.4	61.9	816	6	AR380691	AR380691 Sequence
22	377.4	61.9	816	6	HSBCDF1	X12705 H. sapiens m
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24	357.4	58.6	529	4	SSC133452	AU133452 Sus scrofa
25	345	56.6	345	6	BD211562	BD211562 Canine an
26	345	56.6	345	6	BD211563	BD211563 Canine an
27	345	56.6	345	6	AR241540	AR241540 Sequence
28	345	56.6	345	6	AR241541	AR241541 Sequence
29	345	56.6	345	6	AR254496	AR254496 Sequence
30	345	56.6	345	6	AR254497	AR254497 Sequence
31	341	55.9	405	4	AF068770	AF068770 Felis cat
32	337.8	55.4	405	4	ECU91947	U91947 Equus caball
33	329.8	54.1	33	6	AF091133	AF091133 Canis fam
34	329.8	54.1	405	4	BTNTLEU5	267872 B. taurus MR
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36	303.4	49.7	459	9	BC066282	BC066282 Homo sapi
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38	280.2	45.9	405	9	AF294756	AF294756 Saimiri s
39	276.6	45.3	858	6	AX766521	AX766521 Sequence
40	275.6	45.2	858	6	AX766523	AX766523 Sequence
41	275.4	45.1	405	9	CEY1NSA	I26033 Cercopithec
42	273.8	44.9	405	9	MMU19848	U19848 Macaca mula
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45	244.2	40.0	4946	1	PPVIRE5	V07702 Piasmid pv

ALIGNMENTS

RESULT 1
AF331919 610 bp mRNA linear MAM 04-OCT-2001
DEFINITION Canis familiaris interleukin-5 mRNA, complete cds.
ACCESSION AF331919
VERSION AF331919.1 GI:15919180

SOURCE

ORGANISM

Canis familiaris (dog)
Canis familiaris
Eukaryota; Metazoa; Chordata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Carnivora; Fissipedia; Canidae; Canis.

REFERENCE

AUTHORS

Yang S., Sellins K.S., Weber E. and McCall C.
Canine interleukin-5: molecular characterization of the gene and
expression of biologically active recombinant protein

JOURNAL

JOURNAL MEDLINE
21334408
J. Interferon Cytokine Res. 21 (6), 361-367 (2001)

REFERENCE

2 (bases 1 to 610)

AUTHORS

Yang, S.

Direct Submission

Submitted (22-DEC-2000) Immunology, Heeka Corporation, 1613

Prospect Parkway, Ft Collins, CO 80525, USA

FEATURES

source

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/mol_type="mRNA"

/db_xref="taxon:9615"

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/protein_id="AAL10715.1"

/db_xref="GI:15919181"

/translation="MRRLNLKSLALGAAYVSAFAVENPNNRLVAFTLLSTRITWL
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ORIGIN

3'UTR

Query Match

100.0%; Score 610; DB 4; Length 610;

Best Local Similarity 100.0%; Pred. No. 6,2e-154; Matches 610; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

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1 CAAGGCAAAACATGAACTTTGAGAGTATGAGATGCTTCTGATTTGAGTTGCTAGC 60
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241 AGACACATTTGAAGAACCAACCTGCCACGGGAGGCTGTGATTAACCTATTCAAAACTT 300
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QY 301 GTCTTTAATAAAGAACATAGAGCCGCAAAAAAGGTGTCAGAGAGAAAGATGAG 360
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601 TATATTTGAG 610
Db 601 TATATTTGAG 610

RESULT 2
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LOCUS Canine and feline immunoregulatory proteins, nucleic acid molecules
DEFINITION and method of using the same.
ACCESSION BD211558
VERSION BD211558.1 GI:33021328
KEYWORDS JP 2002516104-A/64.
SOURCE Canis familiaris (dog)
ORGANISM Canis familiaris
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Carnivora; Placentalia; Canidae; Canis.
1 (bases 1 to 610)
Stm,G., Yang,S., Dreitz,M.J. and Wonderling,R.S.
Canine and feline immunoregulatory proteins, nucleic acid molecules
and method of using the same
Patent: JP 2002516104-A 64 04-JUN-2002;
JOURNAL HESKA CORP
OS Canis familiaris (dog)
PN JP 2002516104-A/64
PD 04-JUN-2002
PR 28-MAY-1999 JP 2000551002
PR 29-MAY-1998 US 60/087306
PI GERKEB SIM,SHUMIN YANG,MATTHEW J DREITZ,RAMANI S WONDERLING PC
C12N15/09,A61K31/7088,A61K38/00,A61K39/21,A61K39/00,A61K39/395,

PC A61K39/395,
PC A61K45/00,A61K48/00,A61P37/02,A61P37/04,C07K14/475,C07K14/535,
PC C07K14/54,
PC C07K14/56,C07K14/705,C07K16/24,C07K16/26,C12N1/21,C12N5/10, PC
G01N33/15
PC G01N33/50,C12N15/00,A61K37/02,A61K37/66,C12N5/00 CC Canine
and feline immunoregulatory proteins, nucleic acid CC
molecules and
CC method of using the same
FH Key Location/Qualifiers
FT CDS (29)..(430).
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source location/Qualifiers
1..610
/organism="Canis familiaris"
/mol_type="genomic DNA"
/db_xref="taxon:9615"

ORIGIN
Query Match 100.0%; Score 610; DB 6; Length 610;
Best Local Similarity 100.0%; Pred. No. 6,2e-154;
Matches 610; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 CAAGGCAAAACATGAACTTTGAGAGTATGAGATGCTTCTGATTTGAGTTGCTAGC 60
1 CAAGGCAAAACATGAACTTTGAGAGTATGAGATGCTTCTGATTTGAGTTGCTAGC 60
Db 1 CAAGGCAAAACATGAACTTTGAGAGTATGAGATGCTTCTGATTTGAGTTGCTAGC 60

QY 61 TCTTGGGGCTGCTTATGTTTCTGCTTGTGTAAGAAATCCATGAAATAGACTGTGCG 120
61 TCTTGGGGCTGCTTATGTTTCTGCTTGTGTAAGAAATCCATGAAATAGACTGTGCG 120
Db 61 TCTTGGGGCTGCTTATGTTTCTGCTTGTGTAAGAAATCCATGAAATAGACTGTGCG 120

QY 121 AGAACCCTGACATGCTCTCCATCTCATCTGAACTTGGCTGATAGCCGATGGAACTTGAT 180
121 AGAACCCTGACATGCTCTCCATCTCATCTGAACTTGGCTGATAGCCGATGGAACTTGAT 180
Db 121 AGAACCCTGACATGCTCTCCATCTCATCTGAACTTGGCTGATAGCCGATGGAACTTGAT 180

QY 181 GATTCTACTCTCTGAAAAATATAATACCAACCTGCTGATTAAGAAAGTTTTCAGGGTAT 240
181 GATTCTACTCTCTGAAAAATATAATACCAACCTGCTGATTAAGAAAGTTTTCAGGGTAT 240
Db 181 GATTCTACTCTCTGAAAAATATAATACCAACCTGCTGATTAAGAAAGTTTTCAGGGTAT 240

QY 241 AGACACATTTGAAGAACCAACCTGCCACGGGAGGCTGTGATTAACCTATTCAAAACTT 300
241 AGACACATTTGAAGAACCAACCTGCCACGGGAGGCTGTGATTAACCTATTCAAAACTT 300
Db 241 AGACACATTTGAAGAACCAACCTGCCACGGGAGGCTGTGATTAACCTATTCAAAACTT 300

QY 301 GTCTTTAATAAAGAACATAGAGCCGCAAAAAAGGTGTCAGAGAGAAAGATGAG 360
301 GTCTTTAATAAAGAACATAGAGCCGCAAAAAAGGTGTCAGAGAGAAAGATGAG 360
Db 301 GTCTTTAATAAAGAACATAGAGCCGCAAAAAAGGTGTCAGAGAGAAAGATGAG 360

QY 361 AGTGACAAAGTTCTAGACTACCTGCAAGTATTTCTTGCTGTAATAACACCGAGTGAC 420
361 AGTGACAAAGTTCTAGACTACCTGCAAGTATTTCTTGCTGTAATAACACCGAGTGAC 420
Db 361 AGTGACAAAGTTCTAGACTACCTGCAAGTATTTCTTGCTGTAATAACACCGAGTGAC 420

QY 421 ACCGGAAGTTGAGAACCAACCGGCTTATTTGTAAGTAAGTTTGGAGAAAGTGT 480
421 ACCGGAAGTTGAGAACCAACCGGCTTATTTGTAAGTAAGTTTGGAGAAAGTGT 480
Db 421 ACCGGAAGTTGAGAACCAACCGGCTTATTTGTAAGTAAGTTTGGAGAAAGTGT 480

QY 481 TTTGGCGATGAGATGAGGGCCAAACAGTAGAGACTTAATGCGCAGATTAACCTAGC 540
481 TTTGGCGATGAGATGAGGGCCAAACAGTAGAGACTTAATGCGCAGATTAACCTAGC 540
Db 481 TTTGGCGATGAGATGAGGGCCAAACAGTAGAGACTTAATGCGCAGATTAACCTAGC 540

QY 541 TTCAGAGCAAAAGTAATATTTCAAGCATCTTACTTTATCACTTATCAACAGATGAAA 600
541 TTCAGAGCAAAAGTAATATTTCAAGCATCTTACTTTATCACTTATCAACAGATGAAA 600
Db 541 TTCAGAGCAAAAGTAATATTTCAAGCATCTTACTTTATCACTTATCAACAGATGAAA 600

QY 601 TATATTTGAG 610
601 TATATTTGAG 610
Db 601 TATATTTGAG 610

RESULT 3
BD211559/c 610 bp DNA linear PAT 17-JUN-2003
LOCUS Canine and feline immunoregulatory proteins, nucleic acid molecules
DEFINITION and method of using the same.
ACCESSION BD211559

VERSION BD211559.1 GI:33021329
KEYWORDS JP 2002516104-A/65.
SOURCE Canis familiaris (dog)
ORGANISM Canis familiaris
REFERENCE Eukaryota; Metazoa; Chordata; Craniata; Vertebrate; Euteleostomi;
Mammalia; Eutheria; Carnivora; Fissipedia; Canidae; Canis.
AUTHORS 1 (bases 1 to 610)
TITLE Sim.G., Yang,S., Dreitz,M.J. and Wonderling,R.S.
Canine and feline immunoregulatory proteins, nucleic acid molecules
and method of using the same
JOURNAL Patent: JP 2002516104-A 65 04-JUN-2002;
HESKA CORP
COMMENT OS Canis familiaris (dog)
PN JP 2002516104-A/65
PD 04-JUN-2002
PF 28-MAY-1999 JP 2000551002
PR 29-MAY-1998 US 60/087306
PI GEKKEE SIM, SHUWIN YANG, MATTHEW J DREITZ, RAMANI S WONDERLING PC
C12N15/09,A61K31/7088,A61K38/00,A61K39/00,A61K39/395,
PC A61K39/395,
PC A61K45/00,A61K48/00,A61P37/02,A61P37/04,C07K14/475,C07K14/535,
PC C07K14/54,C07K14/705,C07K16/24,C07K16/28,C12N1/21,C12N5/10, PC
G01N33/15,
PC G01N33/50,C12N15/00,A61K37/02,A61K37/66,C12N5/00 CC Canine
and feline immunoregulatory proteins, nucleic acid CC
molecules and
CC method of using the same
FH Key Location/Qualifiers
FT source 1. 610
/organism="Canis familiaris (dog)".
location/Qualifiers
1. 610
/organism="Canis familiaris"
/mol_type="genomic DNA"
/db_xref="taxon:9615"

ORIGIN

Query Match 100.0%; Score 610; DB 6; Length 610;
Best Local Similarity 100.0%; Pred. No. 6.2e-154;
Matches 610; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 CAAGGCAACACCTGAACATTTGAGAGCTATGAGATGCTTCTGATTTGAGTTGCTAGC 60
DB 610 CAAGGCAACACCTGAACATTTGAGAGCTATGAGATGCTTCTGATTTGAGTTGCTAGC 551
QY 61 TCTTGGGGCTGCTATGTTTCTGCTTTGCTGTAGAAAATCCCATGAAATAGACTGTGAC 120
DB 550 TCTTGGGGCTGCTATGTTTCTGCTTTGCTGTAGAAAATCCCATGAAATAGACTGTGAC 491
QY 121 AGAGACCTTGACACTGCTCTCCACTCATCGAACTTGCGTATGAGCGGATGGAACTGAT 180
DB 490 AGAGACCTTGACACTGCTCTCCACTCATCGAACTTGCGTATGAGCGGATGGAACTGAT 431
QY 181 GATTCTCTACTCTGAAAAATTAATAATCACCACTGCACTTAAGAAGTTTTTCAAGGTAT 240
DB 430 GATTCTCTACTCTGAAAAATTAATAATCACCACTGCACTTAAGAAGTTTTTCAAGGTAT 371
QY 241 AGACACATTGAAGAACCAAACTGCCACGCGGAGGCTGTGATAAATACTATTCAAAACCTT 300
DB 370 AGACACATTGAAGAACCAAACTGCCACGCGGAGGCTGTGATAAATACTATTCAAAACCTT 311
QY 301 GTCTTTAATAAAGAACACATAGAGCGCCAAAAGAGGTGTGACGAGAAAGATGGAG 360
DB 310 GTCTTTAATAAAGAACACATAGAGCGCCAAAAGAGGTGTGACGAGAAAGATGGAG 251
QY 361 AGTGACAAAGTTCTTAGACTACCTGCAAGTATTTCTTGSTATTAATAACACCGAGTGAC 420
DB 250 AGTGACAAAGTTCTTAGACTACCTGCAAGTATTTCTTGSTATTAATAACACCGAGTGAC 191
QY 421 ACCGGAAGTTGAGAACCAACCGGCTTATTTGATGAGAAAGATTTTGAAGAAATGGTTT 480
DB 190 ACCGGAAGTTGAGAACCAACCGGCTTATTTGATGAGAAAGATTTTGAAGAAATGGTTT 131

QY 481 TTGGCGATGAGATGAGGCGCAACACATAGAGGACTTAATGCGCAGTAACTAAGC 540
DB 130 TTGGCGATGAGATGAGGCGCAACACATAGAGGACTTAATGCGCAGTAACTAAGC 71
QY 541 TTGAGACAAAGTAATTAATTTGAGGACTCTACTTATTAATCACTTACACAGATGAA 600
DB 70 TTGAGACAAAGTAATTAATTTGAGGACTCTACTTATTAATCACTTACACAGATGAA 11
QY 601 TATATTGAG 610
DB 10 TATATTGAG 1

RESULT 4
AR241536 610 bp DNA linear PAT 20-DEC-2002
LOCUS AR241536
DEFINITION Sequence 80 from patent US 6471957.
ACCESSION AR241536
VERSION AR241536.1 GI:27287245
KEYWORDS
SOURCE Unknown.
ORGANISM Unknown.
REFERENCE Unclassified.
1 (bases 1 to 610)
AUTHORS Sim.G., Yang,S., Dreitz,M.J. and Wonderling,R.S.
TITLE Canine IL-4 immunoregulatory proteins and uses thereof
JOURNAL Patent: US 6471957-A 80 29-OCT-2002;
FEATURES
source 1. 610
/organism="unknown"
/mol_type="genomic DNA"

ORIGIN

Query Match 100.0%; Score 610; DB 6; Length 610;
Best Local Similarity 100.0%; Pred. No. 6.2e-154;
Matches 610; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 CAAGGCAACACCTGAACATTTGAGAGCTATGAGATGCTTCTGATTTGAGTTGCTAGC 60
DB 1 CAAGGCAACACCTGAACATTTGAGAGCTATGAGATGCTTCTGATTTGAGTTGCTAGC 60
QY 61 TCTTGGGGCTGCTATGTTTCTGCTTTGCTGTAGAAAATCCCATGAAATAGACTGTGAC 120
DB 61 TCTTGGGGCTGCTATGTTTCTGCTTTGCTGTAGAAAATCCCATGAAATAGACTGTGAC 120
QY 121 AGAGACCTTGACACTGCTCTCCACTCATCGAACTTGCGTATGAGCGGATGGAACTGAT 180
DB 121 AGAGACCTTGACACTGCTCTCCACTCATCGAACTTGCGTATGAGCGGATGGAACTGAT 180
QY 181 GATTCTCTACTCTGAAAAATTAATAATCACCACTGCACTTAAGAAGTTTTTCAAGGTAT 240
DB 181 GATTCTCTACTCTGAAAAATTAATAATCACCACTGCACTTAAGAAGTTTTTCAAGGTAT 240
QY 241 AGACACATTGAAGAACCAAACTGCCACGCGGAGGCTGTGATAAATACTATTCAAAACCTT 300
DB 241 AGACACATTGAAGAACCAAACTGCCACGCGGAGGCTGTGATAAATACTATTCAAAACCTT 300
QY 301 GTCTTTAATAAAGAACACATAGAGCGCCAAAAGAGGTGTGACGAGAAAGATGGAG 360
DB 301 GTCTTTAATAAAGAACACATAGAGCGCCAAAAGAGGTGTGACGAGAAAGATGGAG 360
QY 361 AGTGACAAAGTTCTTAGACTACCTGCAAGTATTTCTTGSTATTAATAACACCGAGTGAC 420
DB 361 AGTGACAAAGTTCTTAGACTACCTGCAAGTATTTCTTGSTATTAATAACACCGAGTGAC 420
QY 421 ACCGGAAGTTGAGAACCAACCGGCTTATTTGATGAGAAAGATTTTGAAGAAATGGTTT 480
DB 421 ACCGGAAGTTGAGAACCAACCGGCTTATTTGATGAGAAAGATTTTGAAGAAATGGTTT 480
QY 481 TTGGCGATGAGATGAGGCGCAACACATAGAGGACTTAATGCGCAGTAACTAAGC 540
DB 481 TTGGCGATGAGATGAGGCGCAACACATAGAGGACTTAATGCGCAGTAACTAAGC 540

QY 541 TTCAAGACAAAGTAATATTTTCAGGCACTCTACTATTATCACTTACACAGATGAAA 600
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Db 541 TTCAAGACAAAGTAATATTTTCAGGCACTCTACTATTATCACTTACACAGATGAAA 600
| | | | |
QY 601 TATATTTGAG 610
| | | | |
Db 601 TATATTTGAG 610
| | | | |

RESULT 5
AR241537/c 610 bp DNA linear PAT 20-DEC-2002
LOCUS AR241537
DEFINITION Sequence 82 from patent US 6471957.
ACCESSION AR241537
VERSION AR241537.1 GI:27287246
KEYWORDS
SOURCE Unknown.
ORGANISM Unknown.
REFERENCE 1 (bases 1 to 610)
AUTHORS Sim,G.-K., Yang,S., Dreitz,M.J. and Wonderling,R.S.
TITLE Canine IL-4 immunoregulatory proteins and uses thereof
JOURNAL Patent: US 6471957-A 82 28-OCT-2002;
FEATURES
Source Location/Qualifiers
1..610
/organism="unknown"
/mol_type="genomic DNA"

ORIGIN
Query Match 100.0%; Score 610; DB 6; Length 610;
Best Local Similarity 100.0%; Pred. No. 6,2e-154;
Matches 610; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 CAAGGCAAAACACTGAACTTTTCAGAGCTATGAGATGCTCTGAATTTGAGTTGCTAGC 60
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Db 610 CAAGGCAAAACACTGAACTTTTCAGAGCTATGAGATGCTCTGAATTTGAGTTGCTAGC 551
| | | | |
QY 61 TCTTGGGGCTGCTATGTTTCTGCTTTGCTGTGAAAAATCCATGATAGACTGTGGC 120
| | | | |
Db 550 TCTTGGGGCTGCTATGTTTCTGCTTTGCTGTGAAAAATCCATGATAGACTGTGGC 491
| | | | |
QY 121 AGAACCCTTGACACTGCTCTCCACTCATCGAATTTGGCTGAGCGAATCGTAT 180
| | | | |
Db 490 AGAACCCTTGACACTGCTCTCCACTCATCGAATTTGGCTGAGCGAATCGTAT 431
| | | | |
QY 181 GATTCTACTCTGAAAAATATAAATACCAACCTGCTGATTAAGATTTTTCAGGGTAT 240
| | | | |
Db 430 GATTCTACTCTGAAAAATATAAATACCAACCTGCTGATTAAGATTTTTCAGGGTAT 371
| | | | |
QY 241 AGACACATTGAAGAACCAACCTGCCACGCGGAGGCTGTGATTAACATTTCCAAAATT 300
| | | | |
Db 370 AGACACATTGAAGAACCAACCTGCCACGCGGAGGCTGTGATTAACATTTCCAAAATT 311
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QY 301 GTCTTTATATAAAGAACCATAGAGCGGCAAAAAAGGTGTGCAAGAGAAATGAG 360
| | | | |
Db 310 GTCTTTATATAAAGAACCATAGAGCGGCAAAAAAGGTGTGCAAGAGAAATGAG 251
| | | | |
QY 361 AGTACAAAGTTCTAGACTACCTGCAAGTATTTCTTGTATTAATAACCGAGTGGAC 420
| | | | |
Db 250 AGTACAAAGTTCTAGACTACCTGCAAGTATTTCTTGTATTAATAACCGAGTGGAC 191
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QY 421 ACCGAAAAGTTGAGAACCAACCGGCTTATTTGATGAGAAATTTTGGAGAAATGGTTT 480
| | | | |
Db 190 ACCGAAAAGTTGAGAACCAACCGGCTTATTTGATGAGAAATTTTGGAGAAATGGTTT 131
| | | | |
QY 481 TTTGGCGATGAGATGAGGGCCAAACCAAGTAGGACTTATGCGCACTTAATAGC 540
| | | | |
Db 130 TTTGGCGATGAGATGAGGGCCAAACCAAGTAGGACTTATGCGCACTTAATAGC 71
| | | | |
QY 541 TTCAAGACAAAGTAATATTTTCAGGCACTCTACTATTATCACTTACACAGATGAAA 600
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Db 70 TTCAAGACAAAGTAATATTTTCAGGCACTCTACTATTATCACTTACACAGATGAAA 11
| | | | |

QY 601 TATATTTGAG 610
| | | | |
Db 10 TATATTTGAG 1
| | | | |

RESULT 6
AR254492 610 bp DNA linear PAT 20-DEC-2002
LOCUS AR254492
DEFINITION Sequence 80 from patent US 6482403.
ACCESSION AR254492
VERSION AR254492.1 GI:27303380
KEYWORDS
SOURCE Unknown.
ORGANISM Unknown.
REFERENCE 1 (bases 1 to 610)
AUTHORS Sim,G.-K., Yang,S., Dreitz,M.J. and Wonderling,R.S.
TITLE Canine IL-13 immunoregulatory proteins and uses thereof
JOURNAL Patent: US 6482403-A 80 19-NOV-2002;
FEATURES
Source Location/Qualifiers
1..610
/organism="unknown"
/mol_type="genomic DNA"

ORIGIN
Query Match 100.0%; Score 610; DB 6; Length 610;
Best Local Similarity 100.0%; Pred. No. 6,2e-154;
Matches 610; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 CAAGGCAAAACACTGAACTTTTCAGAGCTATGAGATGCTCTGAATTTGAGTTGCTAGC 60
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Db 1 CAAGGCAAAACACTGAACTTTTCAGAGCTATGAGATGCTCTGAATTTGAGTTGCTAGC 60
| | | | |
QY 61 TCTTGGGGCTGCTATGTTTCTGCTTTGCTGTGAAAAATCCATGATAGACTGTGGC 120
| | | | |
Db 61 TCTTGGGGCTGCTATGTTTCTGCTTTGCTGTGAAAAATCCATGATAGACTGTGGC 120
| | | | |
QY 121 AGAACCCTTGACACTGCTCTCCACTCATCGAATTTGGCTGAGCGAATCGTAT 180
| | | | |
Db 121 AGAACCCTTGACACTGCTCTCCACTCATCGAATTTGGCTGAGCGAATCGTAT 180
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QY 181 GATTCTACTCTGAAAAATATAAATACCAACCTGCTGATTAAGATTTTTCAGGGTAT 240
| | | | |
Db 181 GATTCTACTCTGAAAAATATAAATACCAACCTGCTGATTAAGATTTTTCAGGGTAT 240
| | | | |
QY 241 AGACACATTGAAGAACCAACCTGCCACGCGGAGGCTGTGATTAACATTTCCAAAATT 300
| | | | |
Db 241 AGACACATTGAAGAACCAACCTGCCACGCGGAGGCTGTGATTAACATTTCCAAAATT 300
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QY 301 GTCTTTATATAAAGAACCATAGAGCGGCAAAAAAGGTGTGCAAGAGAAATGAG 360
| | | | |
Db 301 GTCTTTATATAAAGAACCATAGAGCGGCAAAAAAGGTGTGCAAGAGAAATGAG 360
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QY 361 AGTACAAAGTTCTAGACTACCTGCAAGTATTTCTTGTATTAATAACCGAGTGGAC 420
| | | | |
Db 361 AGTACAAAGTTCTAGACTACCTGCAAGTATTTCTTGTATTAATAACCGAGTGGAC 420
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QY 421 ACCGAAAAGTTGAGAACCAACCGGCTTATTTGATGAGAAATTTTGGAGAAATGGTTT 480
| | | | |
Db 421 ACCGAAAAGTTGAGAACCAACCGGCTTATTTGATGAGAAATTTTGGAGAAATGGTTT 480
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QY 481 TTTGGCGATGAGATGAGGGCCAAACCAAGTAGGACTTATGCGCACTTAATAGC 540
| | | | |
Db 481 TTTGGCGATGAGATGAGGGCCAAACCAAGTAGGACTTATGCGCACTTAATAGC 540
| | | | |
QY 541 TTCAAGACAAAGTAATATTTTCAGGCACTCTACTATTATCACTTACACAGATGAAA 600
| | | | |
Db 541 TTCAAGACAAAGTAATATTTTCAGGCACTCTACTATTATCACTTACACAGATGAAA 600
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QY 601 TATATTTGAG 610
| | | | |
Db 601 TATATTTGAG 610
| | | | |

LOCUS	AR254493.1	AR254493	610 bp	DNA	linear	PAT 20-DEC-2002
DEFINITION	Sequence 82 from patent US 6482403.					
ACCESSION	AR254493					
VERSION	AR254493.1	GI:27303381				
KEYWORDS						
SOURCE	Unknown.					
ORGANISM	Unknown.					
REFERENCE	Unclassified.					
AUTHORS	1 (bases 1 to 610)					
TITLE	Sim,G.-K., Yang,S., Drelitz,M.J. and Wonderling,R.S.					
JOURNAL	Caniney II-13 Immunoregulatory proteins and uses thereof					
FEATURES	Patent: US 6482403-A 82 19-NOV-2002;					
source	Location/Qualifiers					
	1..610					
	/organism="unknown"					
	/mol_type="genomic DNA"					
ORIGIN						
Query Match	100.0%; Score 610; DB 6; Length 610;					
Best Local Similarity	100.0%; Pred. No. 6.2e-154;					
Matches	610; Conservative 0; Mismatches 0; Indels 0; Gaps 0;					
QY	1 CAAGGCAAACTGTAACATTTTCAGAGCTATGAGAAATGCTTCTGAATTTGAGTTTGTCTAGC	60				
DB	610 CAAGGCAAACTGTAACATTTTCAGAGCTATGAGAAATGCTTCTGAATTTGAGTTTGTCTAGC	551				
QY	61 TCTTGGGGGCTGCTATGTTTCTGCTCTTGTCTGTATATAAATCCATGAAATAGACTGTGTC	120				
DB	550 TCTTGGGGGCTGCTATGTTTCTGCTCTTGTCTGTATATAAATCCATGAAATAGACTGTGTC	491				
QY	121 AGAGACTTGAACATGCTCTCTCACTCATGCAACTTGGCTGATAGGCGATGGAACTGAT	180				
DB	490 AGAGACTTGAACATGCTCTCTCACTCATGCAACTTGGCTGATAGGCGATGGAACTGAT	431				
QY	181 GATTCTTACTCCTGAAATATAAATATCACCACCTGCAATTAAGAAATTTTCAGGGTAT	240				
DB	430 GATTCTTACTCCTGAAATATAAATATCACCACCTGCAATTAAGAAATTTTCAGGGTAT	371				
QY	241 AGACATTTGAAGAACCAAACTGCCACGGGGAGGCTGTGATTAATCTATTCGAAACTT	300				
DB	370 AGACATTTGAAGAACCAAACTGCCACGGGGAGGCTGTGATTAATCTATTCGAAACTT	311				
QY	301 GTCTTAAATAAAGAACCATAGAGCGGCCAAAAAAGAGTGTGACGAGAGAAAGATGAG	360				
DB	310 GTCTTAAATAAAGAACCATAGAGCGGCCAAAAAAGAGTGTGACGAGAGAAAGATGAG	251				
QY	361 AGTGACAAAGTTCTTAGACTACACTGCAAGTATTTCTTGTTGATTAATAACCGAGTGCAC	420				
DB	250 AGTGACAAAGTTCTTAGACTACACTGCAAGTATTTCTTGTTGATTAATAACCGAGTGCAC	191				
QY	421 ACCGGAAGTTGAGAACCAAAACCGGCTTATTTGTAGTGAAGATTTTGGAGAAAGATGTTT	480				
DB	130 ACCGGAAGTTGAGAACCAAAACCGGCTTATTTGTAGTGAAGATTTTGGAGAAAGATGTTT	131				
QY	481 TTTGGCGATGAGATGAGGGGCCAACCAACAGTAGGAGCTTAATGCGCAGTATTACTAAGC	540				
DB	130 TTTGGCGATGAGATGAGGGGCCAACCAACAGTAGGAGCTTAATGCGCAGTATTACTAAGC	71				
QY	541 TTCAGAGACAAAGTAAATATTTTCAAGCATCTCACTACTTATCACTTATCACTACAGATGAA	600				
DB	70 TTCAGAGACAAAGTAAATATTTTCAAGCATCTCACTACTTATCACTTATCACTACAGATGAA	11				
QY	601 TATATTTGAG 610					
DB	10 TATATTTGAG 1					

LOCUS	AP025436	838 bp	mRNA	linear	MAM 20-Oct-1998
DEFINITION	Felis catus interleukin-5 (IL-5)		mRNA, complete cds.		
ACCESSION	AF025436				
VERSION	AF025436.1	GI:3228518			
KEYWORDS					
SOURCE					
ORGANISM	Felis catus (cat)				
REFERENCE	Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Carnivora; Fissipedia; Felidae; Felis.				
AUTHORS	1 (bases 1 to 838)				
TITLE	Padrid,P.A., Qin,Y., Wells,T.N., Solway,J. and Camoretti-Mercado,B.				
JOURNAL	Sequence and structural analysis of feline interleukin-5 cDNA				
MEDLINE	Am. J. Vet. Res. 59 (10), 1263-1269 (1998)				
PUBMED	98452719				
REFERENCE	2 (bases 1 to 838)				
AUTHORS	Padrid,P.A., Qin,Y., Wells,T.N.C., Solway,J. and Camoretti-Mercado,B.				
TITLE	Direct Submission				
JOURNAL	Submitted (15-SEP-1997) Medicine, University of Chicago, 5841 S. Maryland Avenue, Chicago, IL 60637, USA				
FEATURES	Location/Qualifiers				
source	1..838				
gene	/organism="Felis catus"				
gene	/mol_type="mRNA"				
gene	/db_xref="taxon:9685"				
gene	/cell_type="activated feline peripheral blood mononuclear cells"				
gene	1..838				
gene	/gene="IL-5"				
gene	45..449				
gene	/gene="IL-5"				
gene	/note="cytokine"				
gene	/codon_start=1				
gene	/product="interleukin-5"				
gene	/protein_id="PAC64505.1"				
gene	/db_xref="GI:3228519"				
gene	/translation="MRMLHLHLSLALGAAYSAIAVOSPMNRUVAETLLALSHRITLLIGGNLMIPTEPHNNHQLCTEEVFOGIDTLKNRIVPDGAVEKLFRLNLSLKEHIDROK KCGGERWRVKKFLDYQVLEFVGIYINTEWES"				
ORIGIN					
Query Match	66.5%; Score 405.8; DB 4; Length 838;				
Best Local Similarity	84.8%; Pred. No. 9,7e-99;				
Matches	498; Conservative 0; Mismatches 67; Indels 22; Gaps 3;				
1	CAAGCAACACCTGACGATTCAGAGCTATGAGAACTCTGTAATTGAGTTGCTACG	60			
17	CAAGCAACACCTGACGATTCAGAGCTATGAGAACTCTGTAATTGAGTTGCTACG	76			
61	TCTTGGGGGCTGCTATGTTCTGCGCTTGTGCTGTGAAATCCCATGATAGACTGTGCG	120			
77	TCTTGGGGGCTGCTATGTTCTGCGCTTGTGCTGTGAAATCCCATGATAGACTGTGCG	136			
121	AGAGACCTTGCACCTGCTCTTCACCTCATCGAACTTGCGCTGATAGCGAATGGAACTGAT	180			
137	AGAGACCTTGCACCTGCTCTTCACCTCATCGAACTTGCGCTGATAGCGAATGGAACTGAT	196			
181	GATTCCTACCTCCTGAATAATAATTCACCACTGTGATTAAGAAAGTTTTCAGGGTAT	240			
197	GATTCCTACCTCCTGAATAATAATTCACCACTGTGATTAAGAAAGTTTTCAGGGTAT	256			
241	AGACACCTTGAAGAACCAACTGCGCCACGGGGAGCTGTGGATTAACATAATTCACCAACTT	300			
257	AGACACCTTGAAGAACCAACTGCGCCACGGGGAGCTGTGGATTAACATAATTCACCAACTT	316			
301	GCTTTTAATAAAGACACATAGAGCGCCAAAAAAGGTGTGCAGAGAAAGATGGAG	360			
317	GCTTTTAATAAAGACACATAGAGCGCCAAAAAAGGTGTGCAGAGAAAGATGGAG	376			
361	AGTACCAAAAGTCTTACACTACCTGCAAGATATTTCTGTGTGTAATAACCCGAGTGAC	420			
377	AGTACCAAAAGTCTTACACTACCTGCAAGATATTTCTGTGTGTAATAACCCGAGTGAC	436			

QY 421 ACCGAAAGTTGAGAACAAACCGCTTATTGTAGTGGAGATTTTGGAGAA----- 474
DB 437 AATGGAAGTTGAGATGAACTGGGCTTATTCAGTGAAGATTCGTAGAGAGAAAGAA 496
QY 475 -TGCTTTTGGCCATGATGATGAGGCGCAACCACTAGGACTTATATGCGCATATA 533
DB 497 TGTATTTTGGCAATGAGATGAGGCGCAAC-----AAGGTCAGTGTA 542
QY 534 ACTAAGCTTCAGAGCAAAAGTAATTTTTCAGCATCTTACTCTT 580
DB 543 ATTAACCTTCAGATGCAAG-CAATTTTTCAGGCTACTGCTACTT 588
RESULT 9
BD211560 402 bp DNA linear PAT 17-JUN-2003
LOCUS BD211560
DEFINITION Canine and feline immunoregulatory proteins, nucleic acid molecules
ACCESSION BD211560
VERSION BD211560.1 GI:33021330
KEYWORDS JP 2002516104-A/66.
SOURCE Canis familiaris (dog)
ORGANISM Canis familiaris
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Carnivora; Fissipedia; Canidae; Canis.
REFERENCE 1 (bases 1 to 402)
AUTHORS Sim,G., Yang,S., Dretz,M.J. and Wonderling,R.S.
TITLE Canine and feline immunoregulatory proteins, nucleic acid molecules
and method of using the same
JOURNAL Patent: JP 2002516104-A 66 04-JUN-2002;
HESKA CORP
COMMENT OS Canis familiaris (dog)
PN JP 2002516104-A/66
PD 04-JUN-2002
PF 28-MAY-1999 JP 2000551002
PR 29-MAY-1998 US 60/087306
PI GEKKEE SIM,SHUMIN YANG,MATTHEW J DREITZ,RAMANI S WONDERLING PC
C12N15/09,A61K31/7088,A61K38/00,A61K39/00,A61K39/395,
PC A61K39/395,
PC A61K45/00,A61K48/00,A61P37/02,A61P37/04,C07K14/475,C07K14/535,
PC C07K14/54,C07K14/56,C07K14/705,C07K16/24,C07K16/28,C12N1/21,C12N5/10, PC
G01N33/15,
PC G01N33/50,C12N15/00,A61K37/02,A61K37/66,C12N5/00 CC Canine
and feline immunoregulatory proteins, nucleic acid CC
molecules and
CC method of using the same
FH Key Location/Qualifiers
FT source 1..402
Location/Qualifiers
1..402
/organism="Canis familiaris (dog)".
/mol_type="genomic DNA"
/db_xref="taxon:9615"
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Query Match 65.9%; Score 402; DB 6; Length 402;
Best Local Similarity 100.0%; Pred. No. 1.1e-97;
Matches 402; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
QY 29 ATGAGATGCTTCTGAATTTGAGTTGCTAGCTCTTGGGCTGCTATGTTTGCCTT 88
DB 1 ATGAGATGCTTCTGAATTTGAGTTGCTAGCTCTTGGGCTGCTATGTTTGCCTT 60
QY 89 GCTGTAGAAATCCCATATAGACTGTGTGCAAGAGACTTGAACACTGCTTCCACTCAT 148
DB 61 GCTGTAGAAATCCCATATAGACTGTGTGCAAGAGACTTGAACACTGCTTCCACTCAT 120
QY 149 CGAAGTGTGATAGAGGAGGAGAACTGATGATCTTACTCTGTAATAAATAAATACAC 208
DB 121 CGAAGTGTGATAGAGGAGGAGAACTGATGATCTTACTCTGTAATAAATAAATACAC 180

QY 209 CAACTGTCAATTAAGAGATTTTTCAGGGGTATAGACACATTGAGAACCAACTGCCAC 268
DB 181 CAACGTGCATTTAAAGAGATTTTTCAGGGGTATAGACACATTGAGAACCAACTGCCAC 240
QY 269 GGGAGGCTGTGATTAATCTATTCCTTTTAAATAAAGAACATAGAGCC 328
DB 241 GGGAGGCTGTGATTAATCTATTCCTTTTAAATAAAGAACATAGAGCC 300
QY 329 CAAAAAAGAGTGTGAGAGAGAGATGAGAGTGAACAAGTTCTAGACTACCTGCA 388
DB 301 CAAAAAAGAGTGTGAGAGAGAGATGAGAGTGAACAAGTTCTAGACTACCTGCA 360
QY 389 GTATTTCTGTGTATTAACACCGAGTGACACCGGAAGT 430
DB 361 GTATTTCTGTGTATTAACACCGAGTGACACCGGAAGT 402
RESULT 10
BD211561 402 bp DNA linear PAT 17-JUN-2003
LOCUS BD211561/c
DEFINITION Canine and feline immunoregulatory proteins, nucleic acid molecules
and method of using the same.
ACCESSION BD211561
VERSION BD211561.1 GI:33021331
KEYWORDS JP 2002516104-A/67.
SOURCE Canis familiaris (dog)
ORGANISM Canis familiaris
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Carnivora; Fissipedia; Canidae; Canis.
REFERENCE 1 (bases 1 to 402)
AUTHORS Sim,G., Yang,S., Dretz,M.J. and Wonderling,R.S.
TITLE Canine and feline immunoregulatory proteins, nucleic acid molecules
and method of using the same
JOURNAL Patent: JP 2002516104-A 67 04-JUN-2002;
HESKA CORP
COMMENT OS Canis familiaris (dog)
PN JP 2002516104-A/67
PD 04-JUN-2002
PF 28-MAY-1999 JP 2000551002
PR 29-MAY-1998 US 60/087306
PI GEKKEE SIM,SHUMIN YANG,MATTHEW J DREITZ,RAMANI S WONDERLING PC
C12N15/09,A61K31/7088,A61K38/00,A61K39/00,A61K39/395,
PC A61K39/395,
PC A61K45/00,A61K48/00,A61P37/02,A61P37/04,C07K14/475,C07K14/535,
PC C07K14/54,C07K14/56,C07K14/705,C07K16/24,C07K16/28,C12N1/21,C12N5/10, PC
G01N33/15,
PC G01N33/50,C12N15/00,A61K37/02,A61K37/66,C12N5/00 CC Canine
and feline immunoregulatory proteins, nucleic acid CC
molecules and
CC method of using the same
FH Key Location/Qualifiers
FT source 1..402
Location/Qualifiers
1..402
/organism="Canis familiaris (dog)".
/mol_type="genomic DNA"
/db_xref="taxon:9615"
ORIGIN
Query Match 65.9%; Score 402; DB 6; Length 402;
Best Local Similarity 100.0%; Pred. No. 1.1e-97;
Matches 402; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
QY 29 ATGAGATGCTTCTGAATTTGAGTTGCTAGCTCTTGGGCTGCTATGTTTGCCTT 88
DB 402 ATGAGATGCTTCTGAATTTGAGTTGCTAGCTCTTGGGCTGCTATGTTTGCCTT 343
QY 89 GCTGTAGAAATCCCATATAGACTGTGTGCAAGAGACTTGAACACTGCTTCCACTCAT 148
DB 342 GCTGTAGAAATCCCATATAGACTGTGTGCAAGAGACTTGAACACTGCTTCCACTCAT 283

QY 149 CGAATTGGCTGATAGCGATGGAACCTGATGATTCCTACTCTGAAAAATAAAAATCAC 208
DB 282 CGAATTGGCTGATAGCGATGGAACCTGATGATTCCTACTCTGAAAAATAAAAATCAC 223
QY 209 CAACCTGTCATTAAAGAAAGTTTTCAGGGTATAGACATTTGAAGAACCAATGCCAC 268
DB 222 CAACCTGTCATTAAAGAAAGTTTTCAGGGTATAGACATTTGAAGAACCAATGCCAC 163
QY 269 GGGGAGGCTGTGATTAACCTATTCCTTAAATTAAGAACCATAGAGCC 328
DB 162 GGGGAGGCTGTGATTAACCTATTCCTTAAATTAAGAACCATAGAGCC 103
QY 329 CAAAAAAGGTGTGAGAGAAAGATGAGAGTGAACAAAGTTCTAGACTACCTGCA 388
DB 102 CAAAAAAGGTGTGAGAGAAAGATGAGAGTGAACAAAGTTCTAGACTACCTGCA 43
QY 389 GTATTCTTGCTGTATTAACACCGAGTGAACCCGAAAGT 430
DB 42 GTATTCTTGCTGTATTAACACCGAGTGAACCCGAAAGT 1

RESULT 11
LOCUS AR241538 402 bp DNA linear PAT 20-DEC-2002
DEFINITION Sequence 83 from patent US 6471957.
ACCESSION AR241538
VERSION AR241538.1 GI:27287247
KEYWORDS
SOURCE Unknown.
ORGANISM Unclassified.
REFERENCE 1. (bases 1 to 402)
AUTHORS Sim,G.-K., Yang,S., Dreitz,M.J. and Wonderling,R.S.
TITLE Canine IL-4 immunoregulatory proteins and uses thereof
JOURNAL Patent: US 6471957-A 83 29-Oct-2002;
FEATURES
source 1..402
/organism="unknown"
/mol_type="genomic DNA"

ORIGIN
Query Match 65.9%; Score 402; DB 6; Length 402;
Best Local Similarity 100.0%; Pred. No. 1,1e-97;
Matches 402; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 29 ATGGAATGCTTCTGATTTGATTTGCTAGCTCTGGGGCTGCCTATGTTTGCCTTT 88
DB 1 ATGGAATGCTTCTGATTTGATTTGCTAGCTCTGGGGCTGCCTATGTTTGCCTTT 60
QY 89 GCTGTAGAAAATCCCATGAATAGACTGTGTGAGAGACCTTGACATGCTCTCCATCAT 148
DB 61 GCTGTAGAAAATCCCATGAATAGACTGTGTGAGAGACCTTGACATGCTCTCCATCAT 120
QY 149 CGAATTGGCTGATAGCGATGGAACCTGATGATTCCTACTCTGAAAAATAAAAATCAC 208
DB 121 CGAATTGGCTGATAGCGATGGAACCTGATGATTCCTACTCTGAAAAATAAAAATCAC 180
QY 209 CAACCTGTCATTAAAGAAAGTTTTCAGGGTATAGACATTTGAAGAACCAATGCCAC 268
DB 181 CAACCTGTCATTAAAGAAAGTTTTCAGGGTATAGACATTTGAAGAACCAATGCCAC 240
QY 269 GGGGAGGCTGTGATTAACCTATTCCTTAAATTAAGAACCATAGAGCC 328
DB 241 GGGGAGGCTGTGATTAACCTATTCCTTAAATTAAGAACCATAGAGCC 300
QY 329 CAAAAAAGGTGTGAGAGAAAGATGAGAGTGAACAAAGTTCTAGACTACCTGCA 388
DB 301 CAAAAAAGGTGTGAGAGAAAGATGAGAGTGAACAAAGTTCTAGACTACCTGCA 360
QY 389 GTATTCTTGCTGTATTAACACCGAGTGAACCCGAAAGT 430
DB 361 GTATTCTTGCTGTATTAACACCGAGTGAACCCGAAAGT 402

RESULT 12
LOCUS AR241539/C 402 bp DNA linear PAT 20-DEC-2002
DEFINITION Sequence 84 from patent US 6471957.
ACCESSION AR241539
VERSION AR241539.1 GI:27287248
KEYWORDS
SOURCE Unknown.
ORGANISM Unclassified.
REFERENCE 1. (bases 1 to 402)
AUTHORS Sim,G.-K., Yang,S., Dreitz,M.J. and Wonderling,R.S.
TITLE Canine IL-4 immunoregulatory proteins and uses thereof
JOURNAL Patent: US 6471957-A 84 29-Oct-2002;
FEATURES
source 1..402
/organism="unknown"
/mol_type="genomic DNA"

ORIGIN
Query Match 65.9%; Score 402; DB 6; Length 402;
Best Local Similarity 100.0%; Pred. No. 1,1e-97;
Matches 402; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 29 ATGGAATGCTTCTGATTTGATTTGCTAGCTCTGGGGCTGCCTATGTTTGCCTTT 88
DB 402 ATGGAATGCTTCTGATTTGATTTGCTAGCTCTGGGGCTGCCTATGTTTGCCTTT 343
QY 89 GCTGTAGAAAATCCCATGAATAGACTGTGTGAGAGACCTTGACATGCTCTCCATCAT 148
DB 342 GCTGTAGAAAATCCCATGAATAGACTGTGTGAGAGACCTTGACATGCTCTCCATCAT 283
QY 149 CGAATTGGCTGATAGCGATGGAACCTGATGATTCCTACTCTGAAAAATAAAAATCAC 208
DB 282 CGAATTGGCTGATAGCGATGGAACCTGATGATTCCTACTCTGAAAAATAAAAATCAC 223
QY 209 CAACCTGTCATTAAAGAAAGTTTTCAGGGTATAGACATTTGAAGAACCAATGCCAC 268
DB 222 CAACCTGTCATTAAAGAAAGTTTTCAGGGTATAGACATTTGAAGAACCAATGCCAC 163
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QY 329 CAAAAAAGGTGTGAGAGAAAGATGAGAGTGAACAAAGTTCTAGACTACCTGCA 388
DB 102 CAAAAAAGGTGTGAGAGAAAGATGAGAGTGAACAAAGTTCTAGACTACCTGCA 43
QY 389 GTATTCTTGCTGTATTAACACCGAGTGAACCCGAAAGT 430
DB 42 GTATTCTTGCTGTATTAACACCGAGTGAACCCGAAAGT 1

RESULT 13
LOCUS AR254494 402 bp DNA linear PAT 20-DEC-2002
DEFINITION Sequence 83 from patent US 6482403.
ACCESSION AR254494
VERSION AR254494.1 GI:27303382
KEYWORDS
SOURCE Unknown.
ORGANISM Unclassified.
REFERENCE 1. (bases 1 to 402)
AUTHORS Sim,G.-K., Yang,S., Dreitz,M.J. and Wonderling,R.S.
TITLE Canine IL-13 immunoregulatory proteins and uses thereof
JOURNAL Patent: US 6482403-A 83 19-Nov-2002;
FEATURES
source 1..402
/organism="unknown"
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ORIGIN

Query Match 65.9%; Score 402; DB 6; Length 402;
Best Local Similarity 100.0%; Pred. No. 1.1e-97;
Matches 402; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 29 ATGAGAAATGCTTCTGAATTTGAGTTTGTAGCTCTTGGGCTGCTATGTTTCTGCTTT 88
DB 1 ATGAGAAATGCTTCTGAATTTGAGTTTGTAGCTCTTGGGCTGCTATGTTTCTGCTTT 60

QY 89 GCTGTAAAAATCCCATGAAATAGACTGCTGAGAGACCTTGAACACTGCTCCACACTAT 148
DB 61 GCTGTAAAAATCCCATGAAATAGACTGCTGAGAGACCTTGAACACTGCTCCACACTAT 120

QY 149 CGAAGTGTGCTGATAGGCGATGGGAACCTGATGATTCCTACTCTGTAATAATAAATCAC 208
DB 121 CGAAGTGTGCTGATAGGCGATGGGAACCTGATGATTCCTACTCTGTAATAATAAATCAC 180

QY 209 CAACTGTGATTAAGAAGTTTTCAGGCTATAGACATTTGAAGAACCAACTGCGCAC 268
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QY 269 GGGGAGGCTGTGATTAAGTAACTATCCAAACCTGTCTTAATAAAGAACAATAGAGCGC 328
DB 241 GGGGAGGCTGTGATTAAGTAACTATCCAAACCTGTCTTAATAAAGAACAATAGAGCGC 300

QY 329 CAAAAAAGAGTGTGAGAGAGAAAGATGAGAGTGAACAAAGTTCTAGACTACTGCA 388
DB 301 CAAAAAAGAGTGTGAGAGAGAAAGATGAGAGTGAACAAAGTTCTAGACTACTGCA 360

QY 389 GTATTTCTTGCTGTATTAACACCGAGTGAACCCGAAAGT 430
DB 361 GTATTTCTTGCTGTATTAACACCGAGTGAACCCGAAAGT 402

RESULT 14
AR254495/c 402 bp DNA linear PAT 20-DEC-2002
LOCUS AR254495 Sequence 84 from patent US 6482403.
DEFINITION AR254495
ACCESSION AR254495.1 GI:27303383
VERSION AR254495.1 GI:27303383
KEYWORDS
SOURCE Unknown.
ORGANISM Unknown.
REFERENCE 1 (bases 1 to 402)
AUTHORS Sim,G.-K., Yang,S., Dreitz,M.J. and Wonderling,R.S.
TITL Caniney IL-13 immunoregulatory proteins and uses thereof
JOURNAL Patent: US 6482403-A 84 19-NOV-2002;
FEATURES
Location/Qualifiers
1..402
source /organism="unknown"
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ORIGIN

Query Match 65.9%; Score 402; DB 6; Length 402;
Best Local Similarity 100.0%; Pred. No. 1.1e-97;
Matches 402; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 29 ATGAGAAATGCTTCTGAATTTGAGTTTGTAGCTCTTGGGCTGCTATGTTTCTGCTTT 88
DB 402 ATGAGAAATGCTTCTGAATTTGAGTTTGTAGCTCTTGGGCTGCTATGTTTCTGCTTT 343

QY 89 GCTGTAAAAATCCCATGAAATAGACTGCTGAGAGACCTTGAACACTGCTCCACACTAT 148
DB 342 GCTGTAAAAATCCCATGAAATAGACTGCTGAGAGACCTTGAACACTGCTCCACACTAT 283

QY 149 CGAAGTGTGCTGATAGGCGATGGGAACCTGATGATTCCTACTCTGTAATAATAAATCAC 208
DB 282 CGAAGTGTGCTGATAGGCGATGGGAACCTGATGATTCCTACTCTGTAATAATAAATCAC 223

QY 209 CAACTGTGATTAAGAAGTTTTCAGGCTATAGACATTTGAAGAACCAACTGCGCAC 268
DB 181 CAACTGTGATTAAGAAGTTTTCAGGCTATAGACATTTGAAGAACCAACTGCGCAC 240

DB 222 CAACTGTGATTAAGAAGTTTTCAGGCTATAGACATTTGAAGAACCAACTGCGCAC 163

QY 269 GGGGAGGCTGTGATTAAGTAACTATCCAAACCTGTCTTAATAAAGAACAATAGAGCGC 328
DB 162 GGGGAGGCTGTGATTAAGTAACTATCCAAACCTGTCTTAATAAAGAACAATAGAGCGC 103

QY 329 CAAAAAAGAGTGTGAGAGAGAAAGATGAGAGTGAACAAAGTTCTAGACTACTGCA 388
DB 102 CAAAAAAGAGTGTGAGAGAGAAAGATGAGAGTGAACAAAGTTCTAGACTACTGCA 43

QY 389 GTATTTCTTGCTGTATTAACACCGAGTGAACCCGAAAGT 430
DB 42 GTATTTCTTGCTGTATTAACACCGAGTGAACCCGAAAGT 1

RESULT 15
AR300436 405 bp DNA linear PAT 12-JUN-2003
LOCUS AR300436 Sequence 1 from patent US 6537781.
DEFINITION AR300436
ACCESSION AR300436
VERSION AR300436.1 GI:31687875
KEYWORDS
SOURCE Unknown.
ORGANISM Unknown.
REFERENCE 1 (bases 1 to 405)
AUTHORS Quo,H., Lawton,R., Mermer,B. and Alyappa,A.P.
TITL Methods and compositions concerning canine Interleukin 5
JOURNAL Patent: US 6537781-A 1 25-MAR-2003;
FEATURES
Location/Qualifiers
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/mol_type="genomic DNA"

ORIGIN

Query Match 65.9%; Score 401.8; DB 6; Length 405;
Best Local Similarity 99.5%; Pred. No. 1.2e-97;
Matches 403; Conservative 0; Mismatches 2; Indels 0; Gaps 0;

QY 29 ATGAGAAATGCTTCTGAATTTGAGTTTGTAGCTCTTGGGCTGCTATGTTTCTGCTTT 88
DB 1 ATGAGAAATGCTTCTGAATTTGAGTTTGTAGCTCTTGGGCTGCTATGTTTCTGCTTT 60

QY 89 GCTGTAAAAATCCCATGAAATAGACTGCTGAGAGACCTTGAACACTGCTCCACACTAT 148
DB 61 GCTGTAAAAATCCCATGAAATAGACTGCTGAGAGACCTTGAACACTGCTCCACACTAT 120

QY 149 CGAAGTGTGCTGATAGGCGATGGGAACCTGATGATTCCTACTCTGTAATAATAAATCAC 208
DB 121 CGAAGTGTGCTGATAGGCGATGGGAACCTGATGATTCCTACTCTGTAATAATAAATCAC 180

QY 209 CAACTGTGATTAAGAAGTTTTCAGGCTATAGACATTTGAAGAACCAACTGCGCAC 268
DB 181 CAACTGTGATTAAGAAGTTTTCAGGCTATAGACATTTGAAGAACCAACTGCGCAC 240

QY 269 GGGGAGGCTGTGATTAAGTAACTATCCAAACCTGTCTTAATAAAGAACAATAGAGCGC 328
DB 241 GGGGAGGCTGTGATTAAGTAACTATCCAAACCTGTCTTAATAAAGAACAATAGAGCGC 300

QY 329 CAAAAAAGAGTGTGAGAGAGAAAGATGAGAGTGAACAAAGTTCTAGACTACTGCA 388
DB 301 CAAAAAAGAGTGTGAGAGAGAAAGATGAGAGTGAACAAAGTTCTAGACTACTGCA 360

QY 389 GTATTTCTTGCTGTATTAACACCGAGTGAACCCGAAAGT 433
DB 361 GTATTTCTTGCTGTATTAACACCGAGTGAACCCGAAAGT 405

Search completed: August 8, 2005, 05:12:04
Job time : 2942.93 sec

GenCore version 5.1.6
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OM nucleic - nucleic search, using SW model

Run on: August 7, 2005, 19:25:03 ; Search time 408.892 Seconds
(without alignment)
8831.282 Million cell updates/sec

Title: US-10-787-382-4

Perfect score: 610
Sequence: 1 caagcgcaaacactgacacat.....acagatgaatatcttgcag 610

Scoring table: IDENTITY NUC
Gapop 10.0, Gapext 1.0

Searched: 4390206 seqs, 2959870667 residues

Total number of hits satisfying chosen parameters: 8760412

Minimum DB seq length: 0

Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%

Maximum Match 100%
Listing first 45 summaries

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Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	Query Match	Length	DB ID	Description
1	610	100.0	610	3	AAZ55546 Canine in
2	610	100.0	610	3	AAZ55547 Canine in
3	405.8	66.5	838	3	AAZ44265 Porcine I
4	402	65.9	402	3	AAZ55548 Canine in
5	402	65.9	402	3	AAZ55549 Canine in
6	401.8	65.9	405	4	AAZ55549 Canine in
7	380.6	62.4	816	10	ADG33104 Human DNA
8	379	62.1	816	3	AAZ4857 Human ade
9	379	62.1	816	3	AAA13338 Human int
10	379	62.1	816	3	AAZ20979 Human low
11	379	62.1	816	10	ABZ96673 Human nuc
12	379	62.1	816	10	ACF63368 Human int
13	379	62.1	816	10	ADP56009 Human PRO
14	379	62.1	4057	3	AAA34858 Human ade
15	379	62.1	4057	3	AAZ20980 Human low
16	379	62.1	4057	10	ABZ96674 Human nuc
17	379	62.1	4057	11	ABD20523 Human pul
18	379	62.1	4057	11	ABD20522 Human pul
19	377.4	61.9	816	11	ADJ131910 Human CDN
20	364.4	59.7	520	2	AAZ50755 Ovine IL-

21	345	56.6	345	3	AAZ55550 Canine ma
22	345	56.6	345	3	AAZ55551 Canine ma
23	314.2	51.5	399	2	AAZ50756 Ovine IL-
24	293.8	48.2	393	4	AAZ74306 Canine in
25	276.6	45.3	858	4	AAZ61293 hIL5-P2-P
26	275.6	45.2	402	1	AAZ81380 A human B
27	275.6	45.2	858	9	AAZ61294 hIL5-P30-
28	252	41.3	252	4	AAZ74305 Canine in
29	249.4	40.9	864	9	AAZ43842 Human sec
30	232.4	38.1	864	9	AAZ61296 hIL5.37 v
31	232	38.0	370	1	AAZ91647 Synthetic
32	231.4	37.9	864	9	AAZ61295 hIL5.36 v
33	221	36.2	1945	10	AAZ53890 Primary r
34	217.6	35.7	1533	1	AAZ8231 B cell di
35	217.6	35.7	1534	2	AAZ88013 Murine in
36	217.6	35.7	1623	2	AAZ14925 T cell re
37	217.6	35.7	1623	2	AAZ64062 Placida P
38	209.6	34.4	481	1	AAZ80461 Clone 115
39	207.4	34.0	377	2	AAZ01595 Human int
40	206.4	33.8	399	2	AAZ64061 T cell re
41	206.4	33.8	402	2	AAZ14921 T cell re
42	196.4	32.2	348	2	AAZ14922 T cell re
43	194.6	31.9	342	2	AAZ14923 T cell re
44	194.2	31.8	339	2	AAZ14924 T cell re
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ALIGNMENTS

RESULT 1	AAZ55546	AAZ55546 standard; cDNA; 610 BP.
ID	AAZ55546	
XX	AAZ55546;	
XX	14-MAR-2000	(first entry)
XX	Canine interleukin-5 (IL-5) cDNA.	
XX	Interleukin-5; IL-5; antibody; canine; inhibitor; immune response;	
XX	Immunoregulation; tumor; cancer; autoimmune disease; vaccine; ss.	
XX	Canis familiaris.	
XX	Key	Location/Qualifiers
FT	CDS	29..433
FT	FT	/*tag= a
XX	FT	/product= "Canine IL-5"
XX	PN	W09961618-A2.
XX	PD	02-DEC-1999.
XX	PF	28-MAY-1999; 99WO-US011942.
XX	PR	29-MAY-1998; 98US-0087306P.
XX	PA	(HESK-) HESKA CORP.
XX	PI	Sim G, Yang S, Dreitz M, Wonderling RS;
XX	DR	WPI: 2000-072623/06.
XX	DR	P-PSDB; AAZ58219.
XX	PT	Nucleic acids encoding immunoregulatory proteins from cats or dogs,
XX	PT	useful for treating or preventing e.g. tumors or autoimmune disease.
XX	PS	Claim 1h; Page 223-224; 264pp; English.
XX	CC	Sequences AAZ55546-25551 represent cDNA sequences encoding canine
XX	CC	interleukin-5 (IL-5). The invention relates to canine IL-4, canine or
XX	CC	feline IL-3 ligand, canine or feline CD40, canine or feline CD154 (CD40

CC ligand) canine IL-5, canine IL-13, feline interferon-alpha (IFN-alpha)
CC and feline granulocyte macrophage colony-stimulating factor (GM-CSF), and
CC nucleotides which encode these immunoregulatory proteins. The proteins,
CC their associated nucleic acids, specific antibodies and inhibitors may be
CC used as vaccines for therapeutic or prophylactic regulation of an immune
CC response in animals (particularly cats, dogs, horses and humans). They
CC may be used to treat autoimmune or infectious diseases including
CC allergies, tumours, inflammation and graft rejection, and to increase the
CC response from a co-administered antigen. The nucleotide sequences can
CC also be used for the recombinant production of a protein, while
CC nucleotide fragments are useful as probes, as amplification primers and
CC as sources of inhibitory therapeutics (e.g., antisense oligonucleotides).
CC The proteins may be used to raise antibodies and to screen for modulators
CC of activity, while the antibodies may be used in detection, and in drug
CC targeting
XX
SQ Sequence 610 BP; 202 A; 114 C; 139 G; 155 T; 0 U; 0 Other;

Query Match	100.0%	Score 610;	DB 3;	Length 610;
Best Local Similarity	100.0%	Pred. No.	4e-171;	
Matches 610;	Conservative 0;	Mismatches 0;	Indels 0;	Gaps 0

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Dd	1 CAAGGCAAAACACTGAACATTTTCAGAGCTATGGAATGCTCGAATTTGATTTGCTAGC	60
Qy	61 TCTTGGGGCTGCTATGTTTCTGCTTGGCTGTGAGAAAATCCATGAATAGACTGTGGC	120
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Qy	121 AGAGACCTTGACACTGCTCTCCACTCATCGAATTGGCTGATAGGCCATGGGAACCTGAT	180
Dd	121 AGAGACCTTGACACTGCTCTCCACTCATCGAATTGGCTGATAGGCCATGGGAACCTGAT	180
Qy	181 GATTTCCTACTCCTGAAAAATAAAAATCACCACCTGTGACTTAAAGAGTTTTCAGGGTAT	240
Dd	181 GATTTCCTACTCCTGAAAAATAAAAATCACCACCTGTGACTTAAAGAGTTTTCAGGGTAT	240
Qy	241 AGACACATTGAGAACCCAACTGCCACGGGGAGCTGTGATAACTATTCAAAACCTT	300
Dd	241 AGACACATTGAGAACCCAACTGCCACGGGGAGCTGTGATAACTATTCAAAACCTT	300
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Dd	301 GTCTTTAATPAAAAGAACACATAGAGGGCCAAAAAAAAGTGTGAGGAGAAATAGAG	360
Qy	361 AGTGACAAAGTTCCTAGACTACCTGCAAGTATTTCTGTGTAATTAACAACCGAGTGGAC	420
Dd	361 AGTGACAAAGTTCCTAGACTACCTGCAAGTATTTCTGTGTAATTAACAACCGAGTGGAC	420
Qy	421 ACCGGAAAGTTTGAGAACAAACCGGCTTATTTGATGAGAAAGATTTTGGAGAAAGATGGTTT	480
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Qy	481 TTTGGCGATGAGAAATAGGGGCCAACCAACAGTAGGGACTTATATGCGCAGTAACTAAGC	540
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Dd	541 TTGAGAGCAAAAGTAAATATTTTCAGGCATCTTACTACTTATCACTTTCACACAGATGAAA	600
Qy	601 TATATTTGAG 610	
Dd	601 TATATTTGAG 610	

RESULT 2
AAZ55547/c
ID AAZ55547 standard; cDNA; 610 BP.

AC AA255547;
XX

DT	14-MAR-2000	(first entry)
XX		
DE	Canine interleukin-5 (IL-5) cDNA complement.	
XX		
XX	Interleukin-5, IL-5; antibody; canine; inhibitor; immune response;	
KW	immunoregulation; tumour; cancer; autoimmune disease; vaccine; ss.	
XX		
OS	Canis familiaris.	
XX		
PH	Key	Location/Qualifiers
FT	CDS	complement(1178..582)
FT		/*tag= a
FT		/product= "Canine IL-5"
XX		
PN	W09961618-A2.	
XX		
PD	02-DEC-1999.	
XX		
PF	28-MAY-1999;	99WO-US011942.
XX		
PR	29-MAY-1998;	98US-0087306P.
XX		
PA	(HESK-) HESKA CORP.	
XX		
PI	Sim G, Yang S, Dreitz MJ, Wonderling RS;	
XX		
DR	WPI; 2000-072623/06.	
XX		
PT	P-PsDB; AAY58219.	
XX		
PT	Nucleic acids encoding immunoregulatory proteins from cats or dogs,	
XX	useful for treating or preventing e.g. tumors or autoimmune disease.	
PS	Claim 1h; Page 224-225; 264pp; English.	

CC Sequences AA255546-255551 represent cDNA sequences encoding canine
CC interleukin-5 (IL-5). The invention relates to canine IL-4, canine or
CC interleukin-5 (IL-5), canine or feline CD40, canine or feline CD134 (CD40
CC ligand), canine IL-5, canine IL-3, feline interferon- α (IFN- α),
CC and feline granulocyte macrophage colony-stimulating factor (GM-CSF) and
CC nucleotides which encode these immunoregulatory proteins. The proteins,
CC their associated nucleic acids, specific antibodies and inhibitors may be
CC used as vaccines for therapeutic or prophylactic regulation of an immune
CC response in animals (particularly cats, dogs, horses and humans). They
CC may be used to treat autoimmune or infectious diseases including
CC allergies, tumours, inflammation and graft rejection, and to increase the
CC response from a co-administered antigen. The nucleotide sequences can
CC also be used for the recombinant production of a protein, while
CC nucleotide fragments are useful as probes, as amplification primers and
CC as sources of inhibitory therapeutics (e.g., antisense oligonucleotides).
CC The proteins may be used to raise antibodies and to screen for modulators
CC of activity, while the antibodies may be used in detection, and in drug
CC targeting
XX
XX Sequence 610 BP; 155 A; 139 C; 114 G; 202 T; 0 U; 0 Other;

Query Match	100.0%	Score 610;	DB 3;	Length 610;
Best Local Similarity	100.0%	Pred. NC.4e-171;		
Matches 610; Conservative	0;	Mismatches	0;	Gaps 0

QY 1 AAGGCAAAACACTGAAACATTTTCAGAGCATAAGAAATGCTTCGAAATTTAGTTGGTAGC 60

Db 610 CAAAGCAAAACACTGAAACATTTTCAGAGCATAAGAAATGCTTCGAAATTTAGTTGGTAGC 551

QY 61 TCTTGGGGCTGCTGATGTTTCTGCTTGGCTGTAGAAAAATCCCATGAATAGACTGTGGC 120

Db 550 TCTTGGGGCTGCTGATGTTTCTGCTTGGCTGTAGAAAAATCCCATGAATAGACTGTGGC 491

QY 121 AGAGACCTTGACACATGCTCTCCACATCATGAACTTGGCTGATAGGGGATGGGAACCTGAT 180

Db 490 AGAGACCTTGACACATGCTCTCCACATCATGAACTTGGCTGATAGGGGATGGGAACCTGAT 431

QY 181 GATTCTCTACTCGTAAAAATAAAAATCACCAACTGTGCATTAAGAAGTTTTTCAGGGTAT 240

Db 430 GATTCTACTCTGAAAAATATAATCAACAAGTGTGATTAAAGAGTTTTCAGGGTAT 371
 Qy 241 AGACACATTAAAGAACCAAACTGCCCCAGGGAGGCTGTGATAAATATTCAAAATT 300
 Db 370 AGACACATTAAAGAACCAAACTGCCCCAGGGAGGCTGTGATAAATATTCAAAATT 311
 Qy 301 GCTTTTAAATAAGAACACATAGAGCGCCAAAAAGGTGTGCAGAGAAAGATGAG 360
 Db 310 GTCCTTAATAAAGAACACATAGAGCGCCAAAAAGGTGTGCAGAGAAAGATGAG 251
 Qy 361 AGTGACAAAGTCTCTAGACTCTGCAAGTATTTCTGTGTAAATAAACCCGATGAGAC 420
 Db 250 AGTGACAAAGTCTCTAGACTCTGCAAGTATTTCTGTGTAAATAAACCCGATGAGAC 191
 Qy 421 ACCGGAAGTTGAGAACAAACCGGCTTATTTCTAGTGAAGTTTGGAGAAAGATGATT 480
 Db 190 ACCGGAAGTTGAGAACAAACCGGCTTATTTCTAGTGAAGTTTGGAGAAAGATGATT 131
 Qy 481 TTGGCGATGAGATGAGGCGCAACCAAGTAGGAGCTTAATGGCCAGTAACTAAGC 540
 Db 130 TTGGCGATGAGATGAGGCGCAACCAAGTAGGAGCTTAATGGCCAGTAACTAAGC 71
 Qy 541 TTGAGAGACAAAGTAAATATTTTACAGGATCTCTACTTTATCACTTACACAGATGAAA 600
 Db 70 TTGAGAGACAAAGTAAATATTTTACAGGATCTCTACTTTATCACTTACACAGATGAAA 11
 Qy 601 TATATTTGAG 610
 Db 10 TATATTTGAG 1

RESULT 3

AA244265
 ID AA244265 standard; DNA; 838 BP.

AA244265;

31-MAR-2000 (first entry)

Porcine IL-5 DNA.

Pig; Vaccine; cysticercosis; protective antigen; CCL1; CC3; CC4;

terminal cysticercus; gamma interferon; IFN-gamma; Interleukin 5; IL-5; ss.

Sus scrofa.

CNI233339-A.

13-OCT-1999.

29-JAN-1999; 99CN-00113447.

29-JAN-1999; 99CN-00113447.

(UVTW-) UNIV NO 2 MILITARY MEDICAL PLA.

Sun S, Dai J;

WPI; 2000-087904/08.

Nucleic acid vaccine for cysticercosis co-contracted by human and pig.

Claim 3; Page 9; 21pp; Chinese.

This invention describes a novel nucleic acid vaccine for preventing and curing human and pork cysticercosis. The invention involves the formation of a eukaryotic expression plasmid from fusion transcript expression unit consisting of three protective antigen genes (CCL1, CC3 and CC4) of pig terminal cysticercus and coexpression unit of related cell factor gamma interferon (IFN-gamma) and pork interleukin 5 (IL-5) genes. The production and purification process of said nucleic acid vaccine is simple and convenient, the physical and chemical properties of the vaccine are stable, and the vaccine is easy to store and transport, and

CC possesses effective immunological protective function for human and pig cysticercosis. This sequence represents the pig IL-5 gene used in the CC method of the invention
 XX Sequence 838 BP; 280 A; 148 C; 171 G; 239 T; 0 U; 0 Other;

Query Match 66.5%; Score 405.8; DB 3; Length 838;
 Best Local Similarity 84.8%; Pred. No. 3.1e-110;
 Matches 498; Conservative 0; Mismatches 67; Indels 22; Gaps 3;

Qy 1 CAAGGCAACACATGACATTTTCAGAGCTATGAGAAATCTTGTGAATTTGAGTTGCTTACG 60
 Db 17 CAAGGCAACACATGACATTTTCAGAGCTATGAGAAATCTTGTGAATTTGAGTTGCTTACG 76
 Qy 61 TCTTTGGGGGCTGCTATGTTTCTGCTTGTGCTGTGAATAATCCCATGATAGCTGTGCGC 120
 Db 77 TCTTTGGGGGCTGCTATGTTTCTGCTTGTGCTGTGAATAATCCCATGATAGCTGTGCGC 136
 Qy 121 AGAGACCTTGACACTGCTTCCACTCATGCAACTTGGCTGATAGGCGATGGAACTGAT 180
 Db 137 AGAGACCTTGACACTGCTTCCACTCATGCAACTTGGCTGATAGGCGCGAACTGAT 196
 Qy 181 GATTCTTACTCTGAAAAATATAATCAACAAGTGTGATTAAAGAGTTTTCAGGGTAT 240
 Db 197 GATTCTTACTCTGAAAAATATAATCAACAAGTGTGATTAAAGAGTTTTCAGGGTAT 256
 Qy 241 AGACACATTAAAGAACCAAACTGCCCCAGGGAGGCTGTGATAAATATTCAAAATT 300
 Db 257 AGACACATTAAAGAACCAAACTGCCCCAGGGAGGCTGTGATAAATATTCAAAATT 316
 Qy 301 GCTTTTAAATAAGAACACATAGAGCGCCAAAAAGGTGTGCAGAGAAAGATGAG 360
 Db 317 GCTTTTAAATAAGAACACATAGAGCGCCAAAAAGGTGTGCAGAGAAAGATGAG 376
 Qy 361 AGTGACAAAGTCTCTAGACTCTGCAAGTATTTCTGTGTAAATAAACCCGATGAGAC 420
 Db 377 AGTGACAAAGTCTCTAGACTCTGCAAGTATTTCTGTGTAAATAAACCCGATGAGAC 436
 Qy 421 ACCGGAAGTTGAGAACAAACCGGCTTATTTCTAGTGAAGTTTGGAGAAAGATGATT 474
 Db 437 ACCGGAAGTTGAGAACAAACCGGCTTATTTCTAGTGAAGTTTGGAGAAAGATGATT 496
 Qy 475 -TGCTTTTGGCGATGAGATGAGGCGCAACCAAGTAGGAGCTTAATGGCCAGTATA 533
 Db 497 TGCTATTTTGGCGATGAGATGAGGCGCAACCAAGTAGGAGCTTAATGGCCAGTATA 542
 Qy 534 ACTAAGCTTCAGAGACAAAGTAAATATTTTACAGGATCTCTACTTTT 580
 Db 543 ACTAAGCTTCAGAGACAAAGTAAATATTTTACAGGATCTCTACTTTT 588

RESULT 4

AA255548

AA255548 standard; cDNA; 402 BP.

AA255548;

14-MAR-2000 (first entry)

Canine interleukin-5 (IL-5) cDNA coding region.

Interleukin-5; IL-5; antibody; canine; inhibitor; immune response; immunoregulation; tumour; cancer; autoimmune disease; vaccine; ss.

Canis familiaris.

WO9961618-A2.

02-DEC-1999.

28-MAY-1999; 99WO-US011942.

29-MAY-1998; 98US-0087306P.

XX (HESK-) HESKA CORP.
PA
XX
XX Sim G, Yang S, Dreltz MJ, Wonderling RS;
PI
XX WPI; 2000-072623/06.
DR
DR P-PSDB; AAY58219.
XX
XX Nucleic acid encoding immunoregulatory proteins from cats or dogs,
PT useful for treating or preventing e.g. tumors or autoimmune disease.
XX
XX
PS Claim 1b; Page 225; 264pp; English.
XX
XX Sequences AA255546-255551 represent cDNA sequences encoding canine
CC interleukin-5 (IL-5). The invention relates to canine IL-4, canine or
CC feline Flt-3 ligand, canine or feline CD40, canine or feline CD154 (CD40
CC ligand), canine IL-5, canine IL-13, feline interferon-alpha (IFN-alpha)
CC and feline granulocyte macrophage colony-stimulating factor (GM-CSF), and
CC nucleotides which encode these immunoregulatory proteins. The proteins,
CC their associated nucleic acids, specific antibodies and inhibitors may be
CC used as vaccines for therapeutic or prophylactic regulation of an immune
CC response in animals (particularly cats, dogs, horses and humans). They
CC may be used to treat autoimmune or infectious diseases including
CC allergies, tumors, inflammation and graft rejection, and to increase the
CC response from a co-administered antigen. The nucleotide sequences can
CC also be used for the recombinant production of a protein, while
CC nucleotide fragments are useful as probes, as amplification primers and
CC as sources of inhibitory therapeutics (e.g., antisense oligonucleotides).
CC The proteins may be used to raise antibodies and to screen for modulators
CC of activity, while the antibodies may be used in detection, and in drug
CC targeting
XX
SQ Sequence 402 BP; 129 A; 79 C; 93 G; 101 T; 0 U; 0 Other;
Query Match 65.9%; Score 402; DB 3; Length 402;
Best Local Similarity 100.0%; Pred. No. 3.1e-109;
Matches 402; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
QY 29 ATGAGAAATGCTTGAATTTGAGTTGCTAGCTCTTGCGGCTGCTATGTTCTGCTTT 88
DB 1 ATGAGAAATGCTTGAATTTGAGTTGCTAGCTCTTGCGGCTGCTATGTTCTGCTTT 60
QY 89 GCTGTGAAAAATCCCATGATAGACTGTGTGCGAGAGACTTTGACACTGCTTCCACTCAT 148
DB 61 GCTGTGAAAAATCCCATGATAGACTGTGTGCGAGAGACTTTGACACTGCTTCCACTCAT 120
QY 149 CGAATCTGGCTGATAGAGCGATGGAACCTGATGATTTCTTCTCTGAAAAATAAAAACAC 208
DB 121 CGAATCTGGCTGATAGAGCGATGGAACCTGATGATTTCTTCTCTGAAAAATAAAAACAC 180
QY 209 CAATCTGCAATTAAGAAGTTTTTCAAGGTATAGACATTTGAAGAACCAAACTGCCAC 268
DB 181 CAATCTGCAATTAAGAAGTTTTTCAAGGTATAGACATTTGAAGAACCAAACTGCCAC 240
QY 269 GGGGAGGCTGTGATTAACCTATTCCTTCTTCTTCTTCTTCTTCTTCTTCTTCTTCTTCT 328
DB 241 GGGGAGGCTGTGATTAACCTATTCCTTCTTCTTCTTCTTCTTCTTCTTCTTCTTCTTCT 300
QY 329 CAAAAAAGAGTGTGAGAGGAGAAATGAGAGTGAAGCAAAATCTTCTTCTTCTTCTTCTTCTTCT 388
DB 301 CAAAAAAGAGTGTGAGAGGAGAAATGAGAGTGAAGCAAAATCTTCTTCTTCTTCTTCTTCTTCT 360
QY 389 GTATTTCTTGTGTATTAACACCGAGTGAACCGGAAAGT 430
DB 361 GTATTTCTTGTGTATTAACACCGAGTGAACCGGAAAGT 402
RESULT 5
AA255549/c
ID AA255549 standard; cDNA; 402 BP.
XX
AC AA255549;
XX

DT 14-MAR-2000 (first entry)
XX
XX Canine Interleukin-5 (IL-5) cDNA coding region complement.
DE
XX
XX Interleukin-5; IL-5; antibody; canine; inhibitor; immune response;
XX
XX Immunoregulation; tumor; cancer; autoimmune disease; vaccine; ss.
XX
OS Canis familiaris.
XX
XX NC099618-A2.
XX
XX
XX 02-DEC-1999.
XX
XX 28-MAY-1999; 99MO-US011942.
XX
XX 29-MAY-1998; 98US-0087306P.
XX
XX (HESK-) HESKA CORP.
PA
XX Sim G, Yang S, Dreltz MJ, Wonderling RS;
PI
XX WPI; 2000-072623/06.
DR
DR P-PSDB; AAY58219.
XX
XX Nucleic acid encoding immunoregulatory proteins from cats or dogs,
PT useful for treating or preventing e.g. tumors or autoimmune disease.
XX
XX
PS Claim 1b; Page 226; 264pp; English.
XX
XX Sequences AA255546-255551 represent cDNA sequences encoding canine
CC interleukin-5 (IL-5). The invention relates to canine IL-4, canine or
CC feline Flt-3 ligand, canine or feline CD40, canine or feline CD154 (CD40
CC ligand), canine IL-5, canine IL-13, feline interferon-alpha (IFN-alpha)
CC and feline granulocyte macrophage colony-stimulating factor (GM-CSF), and
CC nucleotides which encode these immunoregulatory proteins. The proteins,
CC their associated nucleic acids, specific antibodies and inhibitors may be
CC used as vaccines for therapeutic or prophylactic regulation of an immune
CC response in animals (particularly cats, dogs, horses and humans). They
CC may be used to treat autoimmune or infectious diseases including
CC allergies, tumors, inflammation and graft rejection, and to increase the
CC response from a co-administered antigen. The nucleotide sequences can
CC also be used for the recombinant production of a protein, while
CC nucleotide fragments are useful as probes, as amplification primers and
CC as sources of inhibitory therapeutics (e.g., antisense oligonucleotides).
CC The proteins may be used to raise antibodies and to screen for modulators
CC of activity, while the antibodies may be used in detection, and in drug
CC targeting
XX
SQ Sequence 402 BP; 101 A; 93 C; 79 G; 129 T; 0 U; 0 Other;
Query Match 65.9%; Score 402; DB 3; Length 402;
Best Local Similarity 100.0%; Pred. No. 3.1e-109;
Matches 402; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
QY 29 ATGAGAAATGCTTGAATTTGAGTTGCTAGCTCTTGCGGCTGCTATGTTCTGCTTT 88
DB 402 ATGAGAAATGCTTGAATTTGAGTTGCTAGCTCTTGCGGCTGCTATGTTCTGCTTT 343
QY 89 GCTGTGAAAAATCCCATGATAGACTGTGTGCGAGAGACTTTGACACTGCTTCCACTCAT 148
DB 342 GCTGTGAAAAATCCCATGATAGACTGTGTGCGAGAGACTTTGACACTGCTTCCACTCAT 283
QY 149 CGAATCTGGCTGATAGAGCGATGGAACCTGATGATTTCTTCTCTGAAAAATAAAAACAC 208
DB 282 CGAATCTGGCTGATAGAGCGATGGAACCTGATGATTTCTTCTCTGAAAAATAAAAACAC 223
QY 209 CAATCTGCAATTAAGAAGTTTTTCAAGGTATAGACATTTGAAGAACCAAACTGCCAC 268
DB 222 CAATCTGCAATTAAGAAGTTTTTCAAGGTATAGACATTTGAAGAACCAAACTGCCAC 163
QY 269 GGGGAGGCTGTGATTAACCTATTCCTTCTTCTTCTTCTTCTTCTTCTTCTTCTTCTTCT 328
DB 162 GGGGAGGCTGTGATTAACCTATTCCTTCTTCTTCTTCTTCTTCTTCTTCTTCTTCTTCT 103

Qy	Dy	Qy	Dy
329	102	389	42
CAAAAAAAAAAGGTGCAGAGAAAGATGGAAGGACAAAGTCTCTGACTCTGCA	CAAAAAAAAAAGGTGCAGAGAAAGATGGAAGGACAAAGTCTCTGACTCTGCA	GTATTTCTTGCTGTAATAAACAACCGAGTGGACAACCGGAAAGT	GTATTTCTTGCTGTAATAAACAACCGAGTGGACAACCGGAAAGT
388	43	430	1

RESULT 6
AAF74300
ID AAF74300 standard; DNA; 405 BP.

AC	AAE74300;	
XX		
DT	04-MAY-2001 (first entry)	
XX		
XX		
DE	Canine interleukin-5 coding sequence #1	

KW Dog; interleukin-5; IL-5; allergy; cancer; gene therapy,
KW inflammatory reaction; ds.

OS **Canis sp.**

PN WO200111049-A2.

PD 15-FEB-2001

PF 09-AUG-2000; 2000WO-US021651.

PR 10-AUG-1999; 99US-00371615.

PA (IDEX-) IDEXX LAB INC.

PI Guo H, Lawton R, Mermer B, Aliyappa AP;

DR WPI; 2001-191542/19.

XXXX

PT generating antibodies which are useful in treating allergies in dogs.

PS Claim 31; Page 46; 48pp; English.

CC The present invention provides the protein and coding sequences of the
CC canine interleukin-5 (IL-5) protein. This can be used to treat allergies
CC cancer and inflammatory reactions in dogs. The present sequence is one
CC version of the IL-5 coding sequence shown in the specification

SQ Sequence 405 BP; 131 A; 77 C; 94 G; 103 T; 0 U; 0 Other;

Query Match	65.9%	Score 401.8;	DB 4;	Length 405;
Best Local Similarity	99.5%	Pred. No. 3.6e-109;		
Matches 403; Conservative	0;	Mismatches 2;	Indels 0;	Gaps 0;

QY 29 ATGAGAATGCTTCTGAATTGAGTTTGCTAGCTCTTGGGGTGCCTATGTTTCTGCCCTTT 88
| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
Db 1 ATGAGAATGCTTCTGAATTGAGTTTGCTAGCTCTTGGGGTGCCTATGTTTCTGCCCTTT 60

Qy 89 GCTGTAGAAAATCCCATGAAATGACTGTGTGGCAGAGACCTTGTACACTGCTCTCCACTCAT 148

Dp 61 GCTGTAGAAATCCCATGAAATGACTGTGTGGCAGAGACCTTGTACACTGCTCTCCACTCAT 120

Qy 149 CGAAGCTGGCTATAGCGATGGAACTGATGATTCCTACTCTGAAAAATAAAAATCAC 208
 121 CGAATCTGGCTATAGCGATGGAACTGATGATTCCTACTCTGAAAAATAAAAATCAC 180

[illegible]

269 GGGGAGGCTGTGATAAATACTATTCCAAACCTGTCTTTAATAAAGACACATGAGCGC 328

Accession	Sequence	Position
Db	GGGGAGCGTGTGGATTAATCTATTCCTTTAATAAAGAACATAGAGCGC	300
Qy	CAAAAAAAAAAGGTGTGCAGAGAAAGATGAGAGTCAAAAGTTCCTAGACTACCTGGCA	388
Db	CAAAAAAAAAAGGTGTGCAGAGAAAGATGAGAGTCAAAAGTTCCTAGACTACCTGGCA	368
Qy	GTAATTTCTTGGTGTAATAAACCCAGATGGACACCGGAAGTTGA	433
Db	GTAATTTCTTGGTGTAATAAACCCAGATGGACATAGGAAGTTGA	405

RESULT 7
ADG33104
ID ADG33104 standard; DNA; 816 BP

AC	ADG33104;	
XX		
DT	26-FEB-2004	(first entry)

DE Human DNA differentially expressed in patients with SLE seqID2428.
XX
KW human; ds; autoimmune; chronic inflammatory disease; SLE;
KW systemic lupus erythematosus; rheumatoid arthritis; cholecystitis;
KW Sjogren's disease; CRST syndrome; scleroderma; ankylosing spondylitis
KW ulcerative colitis; primary sclerosing cholangitis; appendicitis;
KW diverticulitis; primary biliary sclerosis.

OS Homo sapiens

PN WO2003090694-A2.

PD 06-NOV-2003

PF 24-APR-2003; 2003WO-US013015.

PR 24-APR-2002; 2002US-00131827.

PA (EXPR-) EXPRESSION DIAGNOSTICS INC.

PI Wohlgemuth J, Fry K, Woodward R, Ly N;

DR WPI; 2003-877243/81.

Diagnosing or monitoring autoimmune and chronic inflammatory diseases, such as rheumatoid arthritis, systemic lupus erythematosus, ulcerative colitis, psoriasis and asthma by detecting the expression level of one or more genes.

PS Claim 18; SEQ ID NO 428; 877pp; English

This invention relates to novel methods for diagnosing and monitoring autoimmune and chronic inflammatory diseases. Specifically, it refers to the identification of genes that have a clinical utility as diagnostic tools for the management of, in particular, patients with systemic lupus erythematosus (SLE) or rheumatoid arthritis (RA). Accordingly, the present invention describes a method for determining the levels of multiple differentially expressed genes of a patient, in a concerted manner, in order to achieve an improved diagnostic assay with sensitivity and specificity for the disease in question. As such, these genes are useful for the diagnosis of various other inflammatory disorders including cholecystitis, Sjogren's disease, CREST syndrome, scleroderma, ankylosing spondylitis, ulcerative colitis, primary sclerosing cholangitis, appendicitis, diverticulitis, and primary biliary sclerositis. This polynucleotide is a DNA sequence representing human mRNA that is differentially expressed in patients with SLE, used in an exemplification of the invention.

SQ Sequence 816 BP; 276 A; 137 C; 165 G; 238 T; 0 U; 0 Other;

Query Match	62.4%	Score 380.6;	DB 10;	Length 816;
Best Local Similarity	79.3%	Pred. No. 9.8e-103;		
Matches 464; Conservative	0;	Mismatches 119;	Indels 2;	Gaps 1;

QY 2 AAGCAAACTGACATTTGAGAGCTATGGAATGCTTGTGAATTTGAGTTGCTAGCT 61
 DB 18 AAGCAAAACGCAAGCTTTGAGAGCATGAGATGCTTGTGACATTTGAGTTGCTAGCT 77
 QY 62 CTTGGGGCTGCTATGTTTCTGCTTTGCTGTATGAAAATCCCAAGATTAAGCTGTGCA 121
 DB 78 CTTGGAGCTGCTACGATGATGATGATGATGATGATGATGATGATGATGATGATGATG 137
 QY 122 GAGACCTTGACATGCTCTCCACTCATGCAATTTGGCTGATGAGGAGTGGAACTGATG 181
 DB 138 GAGACCTTGACATGCTCTCTCCACTCATGCAATTTGGCTGATGAGGAGTGGAACTGATG 197
 QY 182 ATTCTTACTCTGAAAATTAATAATCACTGTCATTAAGAAGTTTTCAGGATATA 241
 DB 198 ATTCTTACTCTGAAAATTAATAATCACTGTCATTAAGAAGTTTTCAGGATATA 257
 QY 242 GAGACCTTGACATGCTCTCCACTCATGCAATTTGGCTGATGAGGAGTGGAACTGATG 301
 DB 258 GAGACCTTGACATGCTCTCCACTCATGCAATTTGGCTGATGAGGAGTGGAACTGATG 317
 QY 302 TCTTTAATAAAGAACATAGAGCGCCAAAAAAGTGTGAGAGAGAAAGATGAGAGA 361
 DB 318 TCTTTAATAAAGAACATAGAGCGCCAAAAAAGTGTGAGAGAGAAAGATGAGAGA 377
 QY 362 GTGACAAAGTTCTAGACTACTGCAAGTATTTCTGTGTATTAACACCGAGTGGACA 421
 DB 378 GTGACAAAGTTCTAGACTACTGCAAGTATTTCTGTGTATTAACACCGAGTGGACA 437
 QY 422 CCGAAAAGTTGAGAAACAAACCGGCTTATTTGATGAGAAAGTTTGGAGAAAG--GTT 479
 DB 438 ATGAAAGTTGAGAAACAAACCGGCTTATTTGATGAGAAAGTTTGGAGAAAG--GTT 497
 QY 480 TTTTGGCGATGAGATGAGGCGCAACCAAGTATGAGGAGTATGAGGAGTATTAAG 539
 DB 498 TTTTGGCGATGAGATGAGGCGCAACCAAGTATGAGGAGTATGAGGAGTATTAAG 557
 QY 540 CTTGAGAGACAAAGTAAATTTTGAAGGATCTTACTTATTAACA 584
 DB 558 CTTGAGAGACAAAGTAAATTTTGAAGGATCTTACTTATTAACA 602
 RESULT 8
 ID AAA34857 standard; DNA; 816 BP.
 AC AAA34857;
 DT 28-JUL-2000 (first entry)
 DB Human adenosine receptor related polynucleotide SEQ ID NO:2546.
 XX Human; adenosine receptor; low adenosine antisense oligonucleotide;
 KM phosphorochlorate; impaired respiration; inflammation; allergy;
 KM allergic disease; bronchoconstriction; inhibitor; antiinflammatory;
 KM antiallergic; antiallergic; cytosolic; analgesic; impaired airway;
 KM lung disease; ischaemic condition; pulmonary vasoconstriction; asthma;
 KM respiratory distress syndrome; pain; cystic fibrosis; emphysema;
 KM pulmonary hypertension; chronic obstructive pulmonary disease; COPD;
 KM cancer; leukemia; lymphoma; carcinoma; metastasis; B9.
 XX Homo sapiens.
 OS MO200009525-A2.
 PN 24-FEB-2000.
 PD 03-AUG-1999; 99WO-US017712.
 PF 03-AUG-1998; 98US-0095212P.
 PR (UVEC-) UNIV EAST CAROLINA.
 PA
 XX

PI NICE JW;
 XX WPI; 2000-205971/18.
 DR
 XX
 PT New antisense oligonucleotides useful for treating e.g. pulmonary
 PT vasoconstriction, inflammation, allergies, asthma, hypertension,
 PT bronchitis, emphysema, respiratory distress syndrome, ischemia or
 PT cancers.
 PS Disclosure; Page 716; 1343pp; English.
 XX
 CC The present invention describes a new composition comprising an antisense
 CC oligonucleotide (ON) with low adenosine (up to 15%), which targets
 CC nucleic acids involved in bronchoconstriction, allergies, and/or
 CC inflammation. The ON can have antiinflammatory, antiallergic,
 CC antiasthmatic, cytosolic and analgesic activities. The compositions are
 CC useful for the treatment of diseases associated with inflammation,
 CC impaired airways, including lung disease and diseases whose secondary
 CC effects afflict the lungs of a subject. They can be used for treating
 CC e.g. ischaemic conditions, pulmonary vasoconstriction, allergies, asthma,
 CC impaired respiration, respiratory distress syndrome, pain, cystic
 CC fibrosis, pulmonary hypertension, emphysema, chronic obstructive
 CC pulmonary disease (COPD), and cancers such as leukemias, lymphomas,
 CC carcinomas, and cancers which may metastasize to the lungs, including
 CC breast and prostate cancer. The reduction of the adenosine content of the
 CC ONs reduces side effects. The A-containing ONs break down with the
 CC release of deoxyadenosine which activates adenosine receptors causing
 CC bronchoconstriction and inflammation. AAA32313 to AAA3312 represent the
 CC nucleotide sequences given in the sequence listing from the present
 CC invention, which correspond to SEQ ID NO:1 to 2815, and then the last 185
 CC sequences are also called SEQ ID NO:1 to 185, but the sequences differ
 CC from the previously named sequences. SEQ ID NO:11 to 1680 (AAA32323 to
 CC AAA33992) are specifically claimed ONs from the present invention. N.B.
 CC Sequences given in the disclosure of the present invention do not match
 CC up with their corresponding SEQ ID NO: sequences given in the sequence
 CC listing
 XX
 SQ Sequence 816 BP; 277 A; 137 C; 164 G; 238 T; 0 U; 0 Other;
 Query Match 62.1%; Score 379; DB 3; Length 816;
 Best Local Similarity 79.1%; Pred. No. 2,9e-102;
 Matches 463; Conservative 0; Mismatches 120; Indels 2; Gaps 1;
 QY 2 AAGCAAACTGACATTTGAGAGCTATGGAATGCTTGTGAATTTGAGTTGCTAGCT 61
 DB 18 AAGCAAAACGCAAGCTTTGAGAGCATGAGATGCTTGTGACATTTGAGTTGCTAGCT 77
 QY 62 CTTGGGGCTGCTATGTTTCTGCTTTGCTGTATGAAAATCCCAAGATTAAGCTGTGCA 121
 DB 78 CTTGGAGCTGCTACGATGATGATGATGATGATGATGATGATGATGATGATGATGATG 137
 QY 122 GAGACCTTGACATGCTCTCCACTCATGCAATTTGGCTGATGAGGAGTGGAACTGATG 181
 DB 138 GAGACCTTGACATGCTCTCTCCACTCATGCAATTTGGCTGATGAGGAGTGGAACTGATG 197
 QY 182 ATTCTTACTCTGAAAATTAATAATCACTGTCATTAAGAAGTTTTCAGGATATA 241
 DB 198 ATTCTTACTCTGAAAATTAATAATCACTGTCATTAAGAAGTTTTCAGGATATA 257
 QY 242 GAGACCTTGACATGCTCTCCACTCATGCAATTTGGCTGATGAGGAGTGGAACTGATG 301
 DB 258 GAGACCTTGACATGCTCTCCACTCATGCAATTTGGCTGATGAGGAGTGGAACTGATG 317
 QY 302 TCTTTAATAAAGAACATAGAGCGCCAAAAAAGTGTGAGAGAGAAAGATGAGAGA 361
 DB 318 TCTTTAATAAAGAACATAGAGCGCCAAAAAAGTGTGAGAGAGAAAGATGAGAGA 377
 QY 362 GTGACAAAGTTCTAGACTACTGCAAGTATTTCTGTGTATTAACACCGAGTGGACA 421
 DB 378 GTGACAAAGTTCTAGACTACTGCAAGTATTTCTGTGTATTAACACCGAGTGGACA 437
 QY 422 CCGAAAAGTTGAGAAACAAACCGGCTTATTTGATGAGAAAGTTTGGAGAAAG--GTT 479

Db 438 ATAGAAATTGAGACTAAACTGTTTGTTCAGCCAAAGATTGAGAGAGAGACATT 497
 Qy 480 TTTTGGGATGAGATAGAGGCGCAACAGTAGAGGACTTAATGCGCATATAGTAAG 539
 Db 498 TTACTGAGATGAGATAGAGGCGCAAGAGTCAAGGCTTAATTTCAATATATATTA 557
 Qy 540 CTTGAGAGACAAAGTAATATTTTCAGGATCTCTACTACTTATGCA 584
 Db 558 CTTGAGAGGAAAGTAATATTTTCAGGATCTCTACTACTTATGCA 602

RESULT 9

ID AAA13338 standard; cDNA; 816 BP.
 AC AAA13338;

DT 25-JUL-2000 (first entry)
 XX

DE Human interleukin-5 (IL-5) nucleotide sequence.

XX Human; interleukin-5; IL-5; inflammatory disease; asthma; eczema;
 KW antisense oligonucleotide; allergic rhinitis; inflammatory skin disease;
 KW allergic conjunctivitis; inhibitor; ss.

OS Homo sapiens.

PN US6048726-A.

PD 11-APR-2000.

PF 15-MAY-1998; 98US-00079839.

PR 15-MAY-1998; 98US-00079839.

PA (WELT/) WELTMAN J K.
 PA (KARI/) KARIM A S.

PI Weltman JK, Karim AS;

DR WPI; 2000-302784/26.

PT Oligonucleotide comprising non-natural internucleoside linkage, useful
 PT for inhibiting interleukin-5 expression and treating inflammatory
 PT diseases, asthma, allergic rhinitis, allergic conjunctivitis.

PS Disclosure; Col 3-4; 11pp; English.

CC This sequence represents the human interleukin-5 (IL-5) encoding
 CC nucleotide sequence. Interleukin-5 is involved in eosinophilic
 CC inflammation and inflammatory disorders. The present invention relates to
 CC an IL-5 antisense oligonucleotide (see AAA13337) which inhibits the
 CC expression of IL-5. The antisense oligonucleotide has at least one non-
 CC natural internucleoside linkage. The oligonucleotide is able to inhibit
 CC IL-5 secretion in a dose dependent manner, and is useful for inhibiting
 CC IL-5 expression and therefore treating inflammatory diseases, asthma,
 CC allergic rhinitis, allergic conjunctivitis and inflammatory skin diseases
 CC such as eczema

SQ Sequence 816 BP; 277 A; 137 C; 164 G; 238 T; 0 U; 0 Other;

Query Match 62.1%; Score 379; DB 3; Length 816;

Best Local Similarity 79.1%; Pred. No. 2.9e-102;

Matches 463; Conservative 0; Mismatches 120; Indels 2; Gaps 1;

Qy 2 AAGCAACACCTGACATTTTCAGACTATGAGATGCTTGAATTTGAGTTGCTAGCT 61
 Db 18 AAGCAACACCTGACATTTTCAGACTATGAGATGCTTGAATTTGAGTTGCTAGCT 77
 Qy 62 CTTGGGGCTGCTTATGTTTCTGCTTGTGTAAGAAATCCCATGATAGACTGTGCA 121
 Db 78 CTTGAGCTGCTTATGTTTCTGCTTGTGTAAGAAATCCCATGATAGACTGTGCA 137

Qy 122 GAGACCTTGAACACTGCTCTCCACTCATCGAATTGGCTGATAGCGATGGAACTGATG 181
 Db 138 GAGACCTTGGACACTGCTTCTTACTCATCGAATCTGTGATAGCATATGAGACTGTAGG 197
 Qy 182 ATTCTTACTCTGTAATAATTAATACCACTGTGCAATTAAGAAATTTTCAGGGTATA 241
 Db 198 ATTCTTCTCTGTAATAATTAATACCACTGTGCAATTAAGAAATTTTCAGGGTATA 257
 Qy 242 GACGATTTGAAGAACCAAACTGCGCCAGGGAGGCTGTGATTAATTTCCAAACTTG 301
 Db 258 GGCACCTGAGAGACTCAAACTGTGCAAGGGGATCTGTGAAAGACTATTTCAAAAACCTG 317
 Qy 302 TCTTTAATTAAGAACCATATAGAGCGCCAAAAAAGTGTGAGAGAAAGATGAGGA 361
 Db 318 TCTTTAATTAAGAAATCATTTGACCGCCAAAAAAGTGTGAGAGAAAGATGAGGA 377
 Qy 362 GTGACAAAGTTCTTGAAGACTGCAAGTATTTCTGTGTAATTAACCCGAGTGACA 421
 Db 378 GTAAACCAATTCCTAGACTGCTGCAAGAGTTTCTGTGTAATGAACCCGAGTGACA 437
 Qy 422 CCGAAAGTTGAGAACCAACCGCTTATTTAGTGAAGAAATTTTGAGAAAGATG--GTT 479
 Db 438 ATAGAAATTGAGACTAAACTGTTTGTTCAGCCAAAGATTGAGAGAGAGACATT 497
 Qy 480 TTTTGGGATGAGATAGAGGCGCAACAGTAGAGGACTTAATGCGCATATAGTAAG 539
 Db 498 TTACTGAGATGAGATAGAGGCGCAAGAGTCAAGGCTTAATTTCAATATATATTA 557
 Qy 540 CTTGAGAGACAAAGTAATATTTTCAGGATCTCTACTACTTATGCA 584
 Db 558 CTTGAGAGGAAAGTAATATTTTCAGGATCTCTACTACTTATGCA 602

RESULT 10

ID AAF20979 standard; DNA; 816 BP.

AC AAF20979;

DT 14-MAR-2001 (first entry)

DE Human low adenosine antisense oligonucleotide related sequence #2546.

KW Low adenosine antisense oligonucleotide; phosphorothioate; allergy;
 KW human; airway disorder; bronchoconstriction; lung inflammation;
 KW surfactant depletion; respiratory; bronchodilator; antiinflammatory;
 KW immunosuppressive; antiasthmatic; analgesic; hypotensive; cytoskeletal;
 KW respiratory obstruction; pulmonary obstruction; impeded respiration;
 KW surfactant hypoproduction; pulmonary vasoconstriction; asthma; RDS;
 KW respiratory distress syndrome; pain; cystic fibrosis; allergic rhinitis;
 KW pulmonary hypertension; emphysema; pulmonary transplantation rejection;
 KW chronic obstructive pulmonary disease; pulmonary infection; bronchitis;
 KW cancer; ss.

OS Homo sapiens.

PN WO200062736-A2.

PD 26-OCT-2000.

PF 24-MAR-2000; 2000WO-US008020.

PR 06-APR-1999; 99US-0127958P.

PA (UYEC-) UNIV EAST CAROLINA.
 PA (NYCE/) NYCE J W.

PI NYCE JW;

DR WPI; 2000-679539/66.

PT Low adenosine (A) content antisense oligonucleotides which do not trigger
 PT adenosine receptors during metabolism, useful e.g. for treating cancers

PT and respiratory obstructions.
XX
XX Disclosure; Page 788; 1592pp; English.
XX
XX The present invention describes low adenosine (A) content antisense
CC oligonucleotides and compositions (I) comprising them. In the antisense
CC oligonucleotide the A is replaced by a 'universal' or alternative base.
CC (I) can have respiratory, bronchodilator, antiinflammatory, analgesic,
CC immunosuppressive, antiasthmatic, hypotensive and cytostatic activities.
CC The antisense oligonucleotides and (I) can be used to down-regulate the
CC expression and/or activity of target polypeptides associated with
CC lung/respiratory disorders and malignancies, such as stimulating and
CC activating peptide factors and transmitters, transcription factors,
CC immunoglobulins and antibodies, antibody receptors, cytokines and
CC chemokines, endogenously produced specific and non-specific enzymes,
CC binding proteins, adhesion molecules and their receptors, cytokine and
CC chemokine receptors, adenosine receptors, bradykinin receptors, central
CC nervous system (CNS) and peripheral nervous and non-nervous system
CC receptors, CNS and peripheral nervous and non-nervous system peptide
CC transmitters, defensive, growth factors, vasoactive peptides and
CC receptors, binding proteins and malignancy associated proteins. The
CC antisense oligonucleotides may be used in this way to treat disorders
CC including respiratory obstruction (especially pulmonary obstruction
CC and/or bronchoconstriction) and/or lung inflammation, allergy(ies) and/or
CC surfactant hypoproduction which are associated with a disease or
CC condition selected from pulmonary vasoconstriction, inflammation,
CC allergies, asthma, impaired respiration, respiratory distress syndrome
CC (RDS), pain, cystic fibrosis (CF), allergic rhinitis (AR), pulmonary
CC hypertension, emphysema, chronic obstructive pulmonary disease (COPD),
CC pulmonary transplantation rejection, pulmonary infections, bronchitis,
CC and/or cancer. AAF18434 to AAF21543 represent human polynucleotide
CC fragments and antisense oligonucleotides used in the exemplification of
CC the present invention
XX
SQ Sequence 816 BP; 277 A; 137 C; 164 G; 238 T; 0 U; 0 Other;
Query Match 62.1%; Score 379; DB 3; Length 816;
Best Local Similarity 79.1%; Pred. No. 2.9e-102;
Matches 463; Conservative 0; Mismatches 120; Indels 2; Gaps 1;
QY 2 AAGCAAACTGAGTAACTTTCAGAGTATGAGTAACTTTCAGTCTGCT 61
DB 18 AAGCAAACTGAGTAACTTTCAGAGTATGAGTAACTTTCAGTCTGCT 77
QY 62 CTGGGAGCTGCTTATGTTTCTGCTTGTGCTGTAAGAAATCCATGAAATGAGTGTGCA 121
DB 78 CTGGGAGCTGCTTATGTTTCTGCTTGTGCTGTAAGAAATCCATGAAATGAGTGTGCA 137
QY 122 GAGACCTTGAACCTGCTTCACTCATCTGAACTTGGCTGTAAGGCAATGGAACCTGATG 181
DB 138 GAGACCTTGAACCTGCTTCACTCATCTGAACTTGGCTGTAAGGCAATGGAACCTGATG 197
QY 182 ATTCTCTCTCTGAAATTAATAATCACCACTGTGCACTTAAGAAATTTTCAGGATATA 241
DB 198 ATTCTCTCTCTGAAATTAATAATCACCACTGTGCACTTAAGAAATTTTCAGGAAATA 257
QY 242 GACACATTGAGAACCAACTGCCACGGGGAGGCTGTGATTAATTCATAAATCTTG 301
DB 258 GACACATTGAGAACCAACTGCCACGGGGAGGCTGTGATTAATTCATAAATCTTG 317
QY 302 TCTTTAATAAAGAACATAGAGCGCCAAAAAAGTGTGACGAGAAAGTGGAGA 361
DB 318 TCTTTAATAAAGAACATAGAGCGCCAAAAAAGTGTGACGAGAAAGTGGAGA 377
QY 362 GTGCAAAAGTCTGAGTACCTGCAAGTATTTCTGGTGTATTAACACCGAGTGGACA 421
DB 378 GTGCAAAAGTCTGAGTACCTGCAAGTATTTCTGGTGTATTAACACCGAGTGGATA 437
QY 422 CCGGAAAGTTGAGAACCAACCGGCTTATTGTAGTGAAGATTTTGGAGAAAGATG--GTT 479
DB 438 ATAGAAAGTTGAGAACCAACCGGCTTATTGTAGTGAAGATTTTGGAGAAAGATG 497
QY 480 TTTTGGGATGAGATGAGGCGCAACCAACGATAGGACCTTAATGGCCAGTATTAAG 539

DB 498 TTACTGAGTGAAGAAAGAGGCGCAAGAAAGAGTACAGCCCTTAATTTTCAATTAATTTAA 557
QY 540 CTTCAGAGCAAAAGTAAATATTTTCAGGCACTCTACTACTTTATCA 584
DB 558 CTTCAGAGGGAAGTAAATTTTCAGGCACTCTACTACTTTGCA 602
RESULT 11
ID AB296673 standard; DNA; 816 BP.
XX
XX AB296673;
XX
XX 17-OCT-2003 (first entry)
XX
XX Human nucleic acid sequence.
DE
XX Human; antisense; lung dysfunction; nasal airway dysfunction;
KM antiinflammatory steroid; ubiquinone; antiinflammatory; antiallergic;
KM antiasthmatic; hypotensive; immunosuppressive; cytostatic; gene therapy;
KM antisense gene therapy; respiratory; lung; adenosine sensitivity;
KM adenosine receptor; bronchodilation; bronchoconstriction; lung allergy;
KM lung inflammation; respiratory disease; de.
XX
XX Homo sapiens.
OS
XX W0200285308-A2.
XX
XX 31-OCT-2002.
XX
XX 23-APR-2002; 2002MO-US013135.
XX
XX 24-APR-2001; 2001US-0286137P.
XX
XX (EPIC-) EPIGENESIS PHARM INC.
XX
XX NYce JW, Li Y, Sandrasagra A, Katz E, Pabalan J, Aguilar D;
PI Miller S, Tang L, Shahbuddin S;
XX
XX WPI; 2003-229219/22.
XX
XX Pharmaceutical composition for treating ailments associated with impaired
PT respiration, has oligo(s) antisense to specific gene(s) or its
PT corresponding RNAs, and glucocorticoid or non-glucocorticoid steroid or
PT ubiquinone.
XX
PS Disclosure; SEQ ID NO 11915; 872pp; English.
XX
XX The invention relates to a novel pharmaceutical composition, which has a
CC first active agent comprising an oligonucleotide antisense to the
CC initiation codon, coding region, 5' or 3' end genomic flanking regions,
CC 5' and 3' intron-exon junctions, or regions within 2-10 nucleotides of
CC junctions of genes encoding a polypeptide associated with lung and/or
CC nasal airway dysfunction and a second active agent comprising an
CC antiinflammatory steroid and ubiquinone. A composition of the invention
CC has antiinflammatory, antiallergic, antiasthmatic, hypotensive,
CC immunosuppressive, and cytostatic activity. The composition may have a
CC use in antisense gene therapy. The composition is useful for treating or
CC preventing a respiratory, lung or malignant disease or condition, also
CC for enhancing the prophylactic or therapeutic respiratory effect of an
CC antiinflammatory steroid in a subject, for reducing or depleting levels
CC of, or reducing sensitivity to adenosine, reducing levels of adenosine
CC receptor, producing bronchodilation, increasing levels of ubiquinone or
CC lung surfactant in a subject's tissue, or treating bronchoconstriction,
CC lung inflammation, lung allergies, or a respiratory disease or condition.
CC Note: The sequence data for this patent is not represented in the printed
CC specification, but was obtained in electronic format directly from WIPO
CC at ftp.wipo.int/pub/published_pct_sequences
XX
SQ Sequence 816 BP; 277 A; 137 C; 164 G; 238 T; 0 U; 0 Other;
Query Match 62.1%; Score 379; DB 10; Length 816;

Best Local Similarity 79.1%; Pred. No. 2.9e-102;
Matches 463; Conservative 0; Mismatches 120; Indels 2; Gaps 1;

```

Qy 2 AAGCAAACTGAACTTTCAGAGCTTTCAGAAATTCCTTGAATTTGATTTGCTACT 61
Db 18 AAGCAAACTGAACTTTCAGAGCTTTCAGAAATTCCTTGAATTTGATTTGCTACT 77
Qy 62 CTTGGGGCTGCTTATGTTTCTGCTTCTGTAAGAAATTCCTTGAATTTGATTTGCTACT 121
Db 78 CTTGGAGCTGCTTATGTTTCTGCTTCTGTAAGAAATTCCTTGAATTTGATTTGCTACT 137
Qy 122 GAGACCTTTCAGAGCTTTCAGAGCTTTCAGAAATTCCTTGAATTTGATTTGCTACT 181
Db 138 GAGACCTTTCAGAGCTTTCAGAGCTTTCAGAAATTCCTTGAATTTGATTTGCTACT 197
Qy 182 ATTCTTCTCTGTAAGAAATTCAGAACTTTCAGAGCTTTCAGAAATTCCTTGAATTTGCTACT 241
Db 198 ATTCTTCTCTGTAAGAAATTCAGAACTTTCAGAGCTTTCAGAAATTCCTTGAATTTGCTACT 257
Qy 242 GAGACCTTTCAGAGCTTTCAGAGCTTTCAGAAATTCCTTGAATTTGATTTGCTACT 301
Db 258 GAGACCTTTCAGAGCTTTCAGAGCTTTCAGAAATTCCTTGAATTTGATTTGCTACT 317
Qy 302 TCTTTAATTAAGAAATTCAGAACTTTCAGAGCTTTCAGAAATTCCTTGAATTTGCTACT 361
Db 318 TCTTTAATTAAGAAATTCAGAACTTTCAGAGCTTTCAGAAATTCCTTGAATTTGCTACT 377
Qy 362 GTGACAAATTCCTTGAAGCTTTCAGAGCTTTCAGAAATTCCTTGAATTTGCTACT 421
Db 378 GTGACAAATTCCTTGAAGCTTTCAGAGCTTTCAGAAATTCCTTGAATTTGCTACT 437
Qy 422 CCGGAAGCTTTCAGAGCTTTCAGAGCTTTCAGAAATTCCTTGAATTTGCTACT 479
Db 438 ATGAAATTCCTTGAAGCTTTCAGAGCTTTCAGAAATTCCTTGAATTTGCTACT 497
Qy 480 TTTTGGCGATGAGATGAGGCGCAACAGTATGAGGCTTTCAGAGCTTTCAGAAATTCCTTGAATTTGCTACT 539
Db 498 TTTTGGCGATGAGATGAGGCGCAACAGTATGAGGCTTTCAGAGCTTTCAGAAATTCCTTGAATTTGCTACT 557
Qy 540 CTTGAGAGCAAAATTCCTTGAAGCTTTCAGAGCTTTCAGAAATTCCTTGAATTTGCTACT 584
Db 558 CTTGAGAGCAAAATTCCTTGAAGCTTTCAGAGCTTTCAGAAATTCCTTGAATTTGCTACT 602

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RESULT 12

ACF63368
ID ACF63368 standard; DNA; 816 BP.

ACF63368;

09-OCT-2003 (first entry)

Human interleukin 5 gene SEQ ID NO:90.

Human: pharmacological; hypotensive; antihypertensive; vasotropic; laxative; dermatological; antidepressant; tranquilizer; antidiarrheal; eczema; antitumor; antineoplastic; neuroprotective; antiparkinsonian; analgesic; gynaecological; virucide; antidiarrheal; antidiarrheal; cold; antimicrobial; cytostatic; litholytic; pathological disorder; depression; abnormal appetite; hypertension; hypercholesterolemia; hyperlipidemia; erectile dysfunction; anxiety; stress; inflammatory bowel syndrome; ulcerative colitis; Crohn's disease; renal stone; gall stone; migraine; constipation; headache; seizure; multiple sclerosis; polymyositis; fibromyalgia; Parkinson's disease; amyotrophic lateral sclerosis; trauma; chronic pain; pre-menstrual syndrome; sinusitis; carpal tunnel syndrome; chronic fatigue syndrome; rosacea; arthritis; psoriasis; prostatic; inflammation; heart burn; infection; colon cancer; malignant melanoma; skin disorder; gene; ds.

Homo sapiens.

WO2003006478-A1.

XX

23-JAN-2003.

10-JUL-2002; 2002WO-US021664.

10-JUL-2001; 2001US-0303820P.

(OLIG-) OLIGOS ETC INC.

Date RMK, Arrow A, Thompson T;

WPI: 2003-221709/21.

Composition with a modified oligonucleotide useful for treating a patient with a pathological disorder such as abnormal appetite, hypertension, eczema, anxiety, stress, and cancer.

Claim 6; Page 90; 173p; English.

The present invention describes a composition (I) suitable for administration in a mammal, which comprises a modified oligonucleotide (II) of 7-75 nucleotides containing 7 or more contiguous ribose groups linked by achiral 5'-3' internucleoside phosphate linkages, where the modified oligonucleotide is complementary to a region of a gene associated with a pathological disorder. Also described: (1) a nutritional supplement comprising (II); and (2) a cosmetic composition comprising (II), where the modified oligonucleotide is complementary to a region of a gene associated with a skin disorder. (I) and (II) can have hypotensive, antihypertensive, vasotropic, dermatological, antidepressant, tranquilizer, antineoplastic, antidiarrheal, analgesic, gynaecological, virucide, neuroprotective, antiparkinsonian, analgesic, gynaecological, virucide, litholytic, antidiarrheal, antidiarrheal, antidiarrheal, cytostatic and pathological activities. (I) can be used for treating a patient with a pathological disorder selected from abnormal appetite, hypertension, hypercholesterolemia, hyperlipidemia, erectile dysfunction, eczema, depression, anxiety, stress, inflammatory bowel syndrome, ulcerative colitis, Crohn's disease, renal stones, gall stones, constipation, colds, migraine headache, seizure, multiple sclerosis, polymyositis, sinusitis, fibromyalgia, Parkinson's disease, amyotrophic lateral sclerosis (ALS), chronic pain, pre-menstrual syndrome, trauma, carpal tunnel syndrome, inflammation, heart burn, infection, poison ivy, colon cancer, malignant melanoma, and malignant nasal polyps. The nutritional supplement is useful for supplementing the diet of an individual, and the cosmetic composition is useful for improving the appearance of the skin in an individual with a skin disorder. ACF63279 to ACF6410 represent nucleotide sequence given in the exemplification of the present invention

Sequence 816 BP; 277 A; 137 C; 164 G; 238 T; 0 U; 0 Other;

Query Match 62.1%; Score 379; DB 102; Length 816;

Best Local Similarity 79.1%; Pred. No. 2.9e-102;

Matches 463; Conservative 0; Mismatches 120; Indels 2; Gaps 1;

```

Qy 2 AAGCAAACTGAACTTTCAGAGCTTTCAGAAATTCCTTGAATTTGATTTGCTACT 61
Db 18 AAGCAAACTGAACTTTCAGAGCTTTCAGAAATTCCTTGAATTTGATTTGCTACT 77
Qy 62 CTTGGGGCTGCTTATGTTTCTGCTTCTGTAAGAAATTCCTTGAATTTGATTTGCTACT 121
Db 78 CTTGGAGCTGCTTATGTTTCTGCTTCTGTAAGAAATTCCTTGAATTTGATTTGCTACT 137
Qy 122 GAGACCTTTCAGAGCTTTCAGAGCTTTCAGAAATTCCTTGAATTTGATTTGCTACT 181
Db 138 GAGACCTTTCAGAGCTTTCAGAGCTTTCAGAAATTCCTTGAATTTGATTTGCTACT 197
Qy 182 ATTCTTCTCTGTAAGAAATTCAGAACTTTCAGAGCTTTCAGAAATTCCTTGAATTTGCTACT 241
Db 198 ATTCTTCTCTGTAAGAAATTCAGAACTTTCAGAGCTTTCAGAAATTCCTTGAATTTGCTACT 257
Qy 242 GAGACCTTTCAGAGCTTTCAGAGCTTTCAGAAATTCCTTGAATTTGATTTGCTACT 301
Db 258 GAGACCTTTCAGAGCTTTCAGAGCTTTCAGAAATTCCTTGAATTTGATTTGCTACT 317

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XX	
DE	Human adenosine receptor related polynucleotide SEQ ID NO-2547.
XX	
KW	Human; adenosine receptor; low adenosine antisense oligonucleotide;
KM	phosphorothioate; impaired respiration; inflammation; allergy;
KW	allergic disease; bronchoconstriction; inhibitor; antiinflammatory;
KM	antiallergic; antihastmatic; cytostatic; analgesic; impaired airway;
KW	lung disease; ischaemic condition; pulmonary vasoconstriction; asthma;
KM	respiratory distress syndrome; pain; cystic fibrosis; emphysema;
KW	pulmonary hypertension; chronic obstructive pulmonary disease; COPD;
KX	cancer; leukaemia; lymphoma; carcinoma; metastasis; ss.
XX	
OS	Homo sapiens.
XX	
FN	WO200009525-A2.
XX	
PD	24-FEB-2000.
XX	
PF	03-AUG-1999; 99WO-US017712.
XX	
PR	03-AUG-1998; 98US-0095212P.
XX	
PA	(UYEC-) UNIV EAST CAROLINA.
XX	
PI	Nyce JW;
XX	
WI	WPI; 2000-205871/18.
XX	
PT	New antisense oligonucleotides useful for treating e.g. pulmonary
PT	vaseoconstriction, inflammation, allergies, asthma, hypertension,
PT	bronchitis, emphysema, respiratory distress syndrome, ischemia or
PT	cancers.
XX	
DS	Diclosureur; Page 717-718; 1343pp; English.

SQ Sequence 4057 BP; 1303 A; 683 C; 796 G; 1275 T; 0 U; 0 Other;

Query Match	62.1%	Score 379,	DB 3;	Length 4057;
Best Local Similarity	79.1%;	Pred. No. 5.7e+102;		
Matches 463; Conservative	0;	Mismatches 120;	Indels 2;	Gaps 1;

QY 2 AAGCAAACTGAACATTTTCAGAGCTATGAGAAAGCTTCGAAATTTGAGTTTGCTACT 61
Db 3359 AAGCAAAACGAGAACGTTTCAGAGCCATGAGAGATCTTCGATTTGAGTTTGCTACT 3318
QY 62 CTTGGGGCTGCTATGTTTCGCCCTTTGCTGAGAAAATCCCATGAAATGACTGGTGGCA 121

Db	3319	CTTGGACCTGGCTTAACGTGTATGTCATCCCAAGAAATTTCCCAAGATGCAATTGGTGA	3378
Qy	122	GAGACCTTGGACACGTGCTCTCACTCATCGMACTTGGTGATAGCGCATTTGGAACTGATG	181
Db	3379	GAGACCTTGGACCTGCTTTTCTACTCATCGMACTTGGTGATAGCGCAATGAGACTTGGG	3438
Qy	182	ATTCTCTACTCTCGTGAATAAATAATCACCAACTGTGACTTAAGAAAGTTTTTCAGGTATA	241
Db	3439	ATTCTCTGCTCTGTGATATAAATAATCACCAACTGTGACTGAAGAAATCTTTCAAGGATA	3498
Qy	242	GACACATTGAAGAACCAACTGCCACGCGGAGGCTGTGATTAATCTATTTCCAAAATTGG	301
Db	3499	GGCACACTGGAGATCAAACTGTGCAAGGGGGTACTGTGAAMACATATTCAAAACCTGG	3558
Qy	302	TCTTTAATTAAGAAACATGAGCGGCCAAAATAAAGTGTGACGAGAAAGATGAGAGA	361
Db	3559	TCTTTAATTAAGAAATATCATTTGACGGCCAAAATAAAGTGTGAGAAAGAAAGACGAGA	3618
Qy	362	GTCACAAAGTTCTGTAGACTACCTGCAGATATTTCTTGSTGTATTAACACCGAGTGACA	421
Db	3619	GTAACCAATTTCTGTAGACTACCTGCAGAGATTTCTTGSTGTATTAAGAACCCAGCATGATA	3678
Qy	422	CCGGAAGTTGAGAACAAACCGGCTTATTTGATGAGAAAGATTTGGAGAAAGATGGTTTT	481
Db	3679	ATGAAAGTTGAGACTTAACTGGTTTGTTCAGCCAAAGATTTTGGAGAGAAAGACATT	3738
Qy	482	TT--GGCGATGAGAAATGAGGCTCAACCAACAGTAGGAGCTTAATATGCCACGATTAACATAG	539
Db	3739	TTACTGCAGTGAGAAATGAGGCTCAACCAAGAGTAGTCAGGCTTAATTTCAATATATTTAA	3798
Qy	540	CTTGAGAGACAAAGTAATAATTTTACAGCACTCTACTCTTATATA	584
Db	3799	CTTGAGAGAGAAAGTAATAATTTTACGCAATCTACACTTTGGCCA	3843

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RESULT 15
AAF20980
ID AAF20980 standard; DNA; 4057 BP.

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AC AAF20980;

DT 14-MAR-2001 (first entry)

DE Human low adenosine antisense oligonucleotide related Sequence #2547.

KM low adenosine antiense oligonucleotide; phosphorothioate; allergy;
KM human; airway disorder; bronchoconstriction; lung inflammation;
KM surfactant depletion; respiratory; bronchodilator; antiinflammatory;
KM immunosuppressive; antiaesthetic; analgesic; hypotensive; cyclostatic;
KM respiratory obstruction; pulmonary obstruction; impeded respiration;
KM surfactant hypoproduction; pulmonary vasoconstriction; asthma; RDS;
KM respiratory distress syndrome; pain; cystic fibrosis; allergic rhinitis
KM pulmonary hypertension; emphysema; pulmonary transplantation rejection;
KM chronic obstructive pulmonary disease; pulmonary infection; bronchitis;
KM cancer; ss.

OS	Homo sapiens.
XX	
PN	WO200062736-A2.

PD 26-OCT-2000.

PF 24-MAR-2000; 2000WO-US008020.

PR 06-APR-1999; 99US-0127958P.

PA (UYEC-) UNIV EAST CAROLINA

DR WPI; 2000-679539/66

PT Low adenosine (A) content antisense oligonucleotides which do not trigger
PT adenosine receptors during metabolism, useful e.g. for treating cancers
PT and respiratory obstructions.
XX
XX
XX
PS Disclosure; Page 788-789; 1592pp; English.

CC The present invention describes low adenosine (A) content antisense
CC oligonucleotides and compositions (i) comprising them. In the antisense
CC oligonucleotides the A is replaced by a 'universal' or alternative base.
CC (i) can have respiratory, bronchodilator, antiinflammatory, analgesic,
CC immunosuppressive, antiaesthetic, hypotensive and cytostatic activities.
CC The antisense oligonucleotides and (i) can be used to down-regulate the
CC expression and/or activity of target polypeptides associated with
CC lung/respiratory disorders and malignancies, such as stimulating and
CC activating peptide factors and transmitters, such as transcription factors,
CC immunoglobulins and antibodies, antibody receptors, cytokines and
CC chemokines, endogenously produced specific and non-specific enzymes,
CC binding proteins, adhesion molecules and their receptors, cytokines and
CC chemokine receptors, adenosine receptors, bradykinin receptors, central
CC nervous system (CNS) and peripheral nervous and non-nervous system
CC receptors, CNS and peripheral nervous and non-nervous system peptide
CC transmitters, defensins, growth factors, vasoactive peptides and
CC receptors, binding proteins and malignancy associated proteins. The
CC antisense oligonucleotides may be used in this way to treat disorders
CC including respiratory obstruction (especially pulmonary obstruction
CC and/or bronchoconstriction) and/or lung inflammation, allergy(ies) and/or
CC surfactant hypoproduction which are associated with a disease or
CC condition selected from pulmonary vasoconstriction, inflammation,
CC allergies, asthma, impaired respiration, respiratory distress syndrome
CC (RDS), pain, cystic fibrosis (CF), allergic rhinitis (AR), pulmonary
CC hypertension, emphysema, chronic obstructive pulmonary disease (COPD),
CC pulmonary transplantation rejection, pulmonary infections, bronchitis,
CC and/or cancer. AAF18434 to AAF21543 represent human polynucleotide
CC fragments and antisense oligonucleotides used in the exemplification of
CC the present invention
XX
XX
SQ Sequence 4057 BP; 1303 A; 683 C; 796 G; 1275 T; 0 U; 0 Other;

Query Match 62.1%; Score 379; DB 3; Length 4057;

Best Local Similarity 79.1%; Pred. No. 5,7e-102;

Matches 463; Conservative 0; Mismatches 120; Indels 2; Gaps 1;

QY 2 AAGGCAAACTGATCTTTCAGAGCTATGAGAAATGCTTGAATTTGAGTTGCTAGCT 61
DB 3259 AAGGCAAACTGATCTTTCAGAGCTATGAGAAATGCTTGAATTTGAGTTGCTAGCT 3318
QY 62 CTTGGAGCTGCTATGTTCTGCTTGTGCTGTAGAAAATCCCATGATAGCTGGTGGCA 121
DB 3319 CTTGGAGCTGCTATGTTCTGCTTGTGCTGTAGAAAATCCCATGATAGCTGGTGGCA 3378
QY 122 GAGACCTTGACACTGCTCTGCACTCATGCACTTGGCTGATAGCGATGGAACTGTATG 181
DB 3379 GAGACCTTGACACTGCTCTGCACTCATGCACTTGGCTGATAGCGATGGAACTGTATG 3438
QY 182 ATTCTTACTCTGAAAATTAATAATCAGCACTGTGCTTAAAGAAGTTTTCAGGGTATA 241
DB 3439 ATTCTTACTCTGAAAATTAATAATCAGCACTGTGCTTAAAGAAGTTTTCAGGGTATA 3498
QY 242 GACACATTGAAAGAACCAAACTGCGCCACGGGGAGGCTGTGATTAACATATCCAAAACCTG 301
DB 3499 GACACATTGAAAGAACCAAACTGCGCCACGGGGAGGCTGTGATTAACATATCCAAAACCTG 3558
QY 302 TCTTTAATAAAGACACATAGAGCGCCAAAAAAGTGTGCAGAGAAAGATGAGA 361
DB 3559 TCTTTAATAAAGACACATAGAGCGCCAAAAAAGTGTGCAGAGAAAGATGAGA 3618
QY 362 GTGACAAAGTTCTTGACTACTGCGAAAGTATTTCTTGTGTAATTAACACCGAGTGACA 421
DB 3619 GTGACAAAGTTCTTGACTACTGCGAAAGTATTTCTTGTGTAATTAACACCGAGTGACA 3678
QY 422 CCGAAAGTTGAGAACCAACCGGCTTATTTGATGGAAGATTTTGAAGAAGATGTTT 481
DB 3679 ATGAAAGTTGAGAACCAACCGGCTTATTTGATGGAAGATTTTGAAGAAGATGTTT 3738

QY 482 TT--GGCGATGAGAAATGAGGCGCAACCAACAGTAGGAACTTAATGGCCAGTATTAAG 539
DB 3739 TTACTGACATGAGAAATGAGGCGCAACCAACAGTAGGAACTTAATGGCCAGTATTAAG 3798
QY 540 CTTGAGAGCAAAAGTAAATTTTCAGGCACTCTACTACTTATCA 584
DB 3799 CTTGAGAGCAAAAGTAAATTTTCAGGCACTCTACTACTTATCA 3843

Search completed: August 8, 2005, 09:19:49
Job time : 412.892 sec

GenCore version 5.1.6
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OM nucleic - nucleic search, using sw model

Run on: August 7, 2005, 09:34:25 ; Search time 506.007 Seconds
(without alignments)
7814.559 Million cell updates/sec

Title: US-10-787-382-4

Perfect score: 1 caagggcaaacactgaacatc.....acagatgaatatattcgag 610

Scoring table: IDENTITY NUC
Gapop 10.0, Gapext 1.0

Searched: 7297361 seqs, 3241162794 residues

Total number of hits satisfying chosen parameters: 14594722

Minimum DB seq length: 0
Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%

Maximum Match 100%
Listing first 45 summaries

Database :

Published Applications NA:*
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26: /cgn2_6/ptodata/2/pubpna/US60_PUBCOMB.seq:*

Pred. No. is the number of results predicted by chance to have a
score greater than or equal to the score of the result being printed,
and is derived by analysis of the total score distribution.

SUMMARIES

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	1	610	100.0	610	9	US-09-755-633-4
	2	610	100.0	610	9	US-09-755-633-6
	3	610	100.0	610	14	US-10-218-654-80
	4	610	100.0	610	14	US-10-218-654-82
	5	610	100.0	610	15	US-10-262-439-80
	6	610	100.0	610	15	US-10-262-439-82
	7	610	100.0	610	19	US-10-787-382-4

C	8	610	100.0	610	19	US-10-787-382-6	Sequence 6, Appli
	9	402	65.9	402	9	US-09-755-633-7	Sequence 7, Appli
	10	402	65.9	402	9	US-09-755-633-8	Sequence 8, Appli
	11	402	65.9	402	14	US-10-218-654-83	Sequence 83, Appli
	12	402	65.9	402	14	US-10-218-654-84	Sequence 84, Appli
	13	402	65.9	402	15	US-10-262-439-83	Sequence 83, Appli
	14	402	65.9	402	15	US-10-262-439-84	Sequence 84, Appli
	15	402	65.9	402	19	US-10-787-382-7	Sequence 7, Appli
	16	402	65.9	402	19	US-10-787-382-7	Sequence 8, Appli
	17	380.6	62.4	816	22	US-10-880-101A-87	Sequence 87, Appli
	18	379	62.1	816	17	US-10-191-897-90	Sequence 90, Appli
	19	379	62.1	816	21	US-10-929-182-4	Sequence 4, Appli
	20	377.4	61.9	816	18	US-10-641-643-1236	Sequence 1236, Ap
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	22	345	56.6	345	9	US-09-755-633-11	Sequence 11, Appli
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	26	345	56.6	345	15	US-10-262-439-87	Sequence 87, Appli
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	44	154	25.2	3241	22	US-10-880-101A-91	Sequence 91, Appli
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ALIGNMENTS

RESULT 1
US-09-755-633-4
Sequence 4, Application US/09755633
Patent No. US20020127200A1
GENERAL INFORMATION:
APPLICANT: Yang, Shumin
APPLICANT: McCall, Catherine A.
TITLE OF INVENTION: CANINE AND FELINE IMMUNOREGULATORY PROTEINS, NUCLEIC
FILE REFERENCE: IM-2-C1-C1
CURRENT APPLICATION NUMBER: US/09/755,633
CURRENT FILING DATE: 2001-01-05
PRIOR APPLICATION NUMBER: 09/322,409
PRIOR FILING DATE: 1999-05-28
PRIOR APPLICATION NUMBER: 60/087,306
PRIOR FILING DATE: 1998-05-29
NUMBER OF SEQ ID NOS: 21
SOFTWARE: PatentIn Ver. 2.1
SEQ ID NO 4
LENGTH: 610
TYPE: DNA
ORGANISM: Canis familiaris
FEATURE:
NAME/KEY: CDS
LOCATION: (29)..(430)
US-09-755-633-4
Query Match 100.0%; Score 610; DB 9; Length 610;
Best Local Similarity 100.0%; Pred. No. 6e-179;

Matches 610; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

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D 1 CAAGGCAAAACATGAACTTTCAGAGCTATGAGAAATCTTGAATTTGAGTTGCTAGC 60
QY 61 TCTTGGGGCTGCTATGTTTCTGCTTTGCTGTAAGAAATCCATGAAATGACTGTGGC 120
D 61 TCTTGGGGCTGCTATGTTTCTGCTTTGCTGTAAGAAATCCATGAAATGACTGTGGC 120
QY 121 AGAGACCTTGACATGCTCTCCACTCATGCACTTGCTGATAGGCGATGGGAACTGAT 180
D 121 AGAGACCTTGACATGCTCTCCACTCATGCACTTGCTGATAGGCGATGGGAACTGAT 180
QY 181 GATTCTACTCTGAAAAATAAATCAACCACTGTGATTAAGAAATTTTCAGGGTAT 240
D 181 GATTCTACTCTGAAAAATAAATCAACCACTGTGATTAAGAAATTTTCAGGGTAT 240
QY 241 AGACACATTGAGAACCAAACTGCCACGGGAGGCTGTGATTAACCTATTCAAAACCT 300
D 241 AGACACATTGAGAACCAAACTGCCACGGGAGGCTGTGATTAACCTATTCAAAACCT 300
QY 301 GTCTTTAATAAAGAACACATAGAGCGCCAAAAAAGGTGTCAGAGAAAGATGGAG 360
D 301 GTCTTTAATAAAGAACACATAGAGCGCCAAAAAAGGTGTCAGAGAAAGATGGAG 360
QY 361 AGTGACAAAGTTCTCTAGACTACCTGCAAGTATTTCTTGTAATAAACAACCAAGTGAC 420
D 361 AGTGACAAAGTTCTCTAGACTACCTGCAAGTATTTCTTGTAATAAACAACCAAGTGAC 420
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D 421 ACCGGAAGTTGAGAACAAACCGGCTTATTTGATGGAAGATTTTGGAGAAATGGTTT 480
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D 481 TTTGGCGATGAGATGAGGCGCAACCAAGTAGGACTTAATGCGAGATTAACCTAGC 540
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D 541 TTGAGAGACAAAGTAATATTTTTCAGGATCTTACTTATCTTATCTTACACAGATGAAA 600
QY 601 TATATTTGAG 610
D 601 TATATTTGAG 610
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RESULT 2

US-09-755-633-6/c
Sequence 6, Application US/09755633
Patent No. US20020127200A1
GENERAL INFORMATION:
APPLICANT: Yang, Shumin
APPLICANT: McCall, Catherine A.
APPLICANT: Weber, Eric R.
TITLE OF INVENTION: CANINE AND FELINE IMMUNOREGULATORY PROTEINS, NUCLEIC
FILE REFERENCE: IM-2-C1-C1
CURRENT APPLICATION NUMBER: US/09/755,633
CURRENT FILING DATE: 2001-01-05
PRIOR APPLICATION NUMBER: 09/322,409
PRIOR FILING DATE: 1999-05-28
PRIOR APPLICATION NUMBER: 60/087,306
PRIOR FILING DATE: 1998-05-29
NUMBER OF SEQ ID NOS: 21
SOFTWARE: PatentIn Ver. 2.1
SEQ ID NO 6
LENGTH: 610
TYPE: DNA
ORGANISM: Canis familiaris
US-09-755-633-6

Query Match 100.0%; Score 610; DB 9; Length 610;

Best Local Similarity 100.0%; Pred. No. 66-179;
Matches 610; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

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D 550 TCTTGGGGCTGCTATGTTTCTGCTTTGCTGTAAGAAATCCATGAAATGACTGTGGC 491
QY 121 AGAGACCTTGACATGCTCTCCACTCATGCACTTGCTGATAGGCGATGGGAACTGAT 180
D 490 AGAGACCTTGACATGCTCTCCACTCATGCACTTGCTGATAGGCGATGGGAACTGAT 431
QY 181 GATTCTACTCTGAAAAATAAATCAACCACTGTGATTAAGAAATTTTCAGGGTAT 240
D 430 GATTCTACTCTGAAAAATAAATCAACCACTGTGATTAAGAAATTTTCAGGGTAT 371
QY 241 AGACACATTGAGAACCAAACTGCCACGGGAGGCTGTGATTAACCTATTCAAAACCT 300
D 370 AGACACATTGAGAACCAAACTGCCACGGGAGGCTGTGATTAACCTATTCAAAACCT 311
QY 301 GTCTTTAATAAAGAACACATAGAGCGCCAAAAAAGGTGTCAGAGAAAGATGGAG 360
D 310 GTCTTTAATAAAGAACACATAGAGCGCCAAAAAAGGTGTCAGAGAAAGATGGAG 251
QY 361 AGTGACAAAGTTCTCTAGACTACCTGCAAGTATTTCTTGTAATAAACAACCAAGTGAC 420
D 250 AGTGACAAAGTTCTCTAGACTACCTGCAAGTATTTCTTGTAATAAACAACCAAGTGAC 191
QY 421 ACCGGAAGTTGAGAACAAACCGGCTTATTTGATGGAAGATTTTGGAGAAATGGTTT 480
D 190 ACCGGAAGTTGAGAACAAACCGGCTTATTTGATGGAAGATTTTGGAGAAATGGTTT 131
QY 481 TTTGGCGATGAGATGAGGCGCAACCAAGTAGGACTTAATGCGAGATTAACCTAGC 540
D 130 TTTGGCGATGAGATGAGGCGCAACCAAGTAGGACTTAATGCGAGATTAACCTAGC 71
QY 541 TTGAGAGACAAAGTAATATTTTTCAGGATCTTACTTATCTTATCTTACACAGATGAAA 600
D 70 TTGAGAGACAAAGTAATATTTTTCAGGATCTTACTTATCTTATCTTACACAGATGAAA 11
QY 601 TATATTTGAG 610
D 10 TATATTTGAG 1
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RESULT 3

US-10-218-654-80
Sequence 80, Application US/10218654
Publication No. US2003009609A1
GENERAL INFORMATION:
APPLICANT: Sim, Gek-Ke
APPLICANT: Yang, Shumin
APPLICANT: Dreitz, Matthew J.
TITLE OF INVENTION: CANINE AND FELINE IMMUNOREGULATORY PROTEINS, NUCLEIC
FILE REFERENCE: IM-2-C1
CURRENT APPLICATION NUMBER: US/10/218,654
CURRENT FILING DATE: 2002-08-13
PRIOR APPLICATION NUMBER: US/09/322,409
PRIOR FILING DATE: 1999-05-28
PRIOR APPLICATION NUMBER: 60/087,306
PRIOR FILING DATE: 1998-05-29
NUMBER OF SEQ ID NOS: 154
SOFTWARE: PatentIn Ver. 2.0
SEQ ID NO 80
LENGTH: 610
TYPE: DNA
ORGANISM: Canis familiaris
FEATURE:

NAME/KEY: CDS
LOCATION: (29) .. (430)
US-10-218-654-80

Query Match 100.0%; Score 610; DB 14; Length 610;
Best Local Similarity 100.0%; Pred. No. 66-179;
Matches 610; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

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Qy 61. TCTTGGGGCTGCTATGTTTCTGCTTCTGCTAGAAAATCCATGATAGACTGTGGC 120
Db 61. TCTTGGGGCTGCTATGTTTCTGCTTCTGCTAGAAAATCCATGATAGACTGTGGC 120
Qy 121. AGAGACCTTGACACTGCTCTCACTCATCGAATTTGGCTGATAGCGCATGGAACTGTAT 180
Db 121. AGAGACCTTGACACTGCTCTCACTCATCGAATTTGGCTGATAGCGCATGGAACTGTAT 180
Qy 181. GATTCTACTCTGAAAATAAATCAACCACTGTGATTAAGAAGTTTTCAGGGTAT 240
Db 181. GATTCTACTCTGAAAATAAATCAACCACTGTGATTAAGAAGTTTTCAGGGTAT 240
Qy 241. AGACACATTAAGAACCAACCTGCCACGCGGAGGCTGTGATTAATCTATTCAAAACCTT 300
Db 241. AGACACATTAAGAACCAACCTGCCACGCGGAGGCTGTGATTAATCTATTCAAAACCTT 300
Qy 301. GTCTTTAATAAAGAACATAGAGCGCAAAAAAGGTGTGACAGAGAAAGATGAG 360
Db 301. GTCTTTAATAAAGAACATAGAGCGCAAAAAAGGTGTGACAGAGAAAGATGAG 360
Qy 361. AGTGACAAAGTTCTAGACTACCTGCAAGTATTTCTGGTATTAATAACCGAGTGAC 420
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Qy 421. ACCGGAAGTTGAGAACAAACCGCTTATTTGATGAGATTTTGGAGAGAAATGTTT 480
Db 421. ACCGGAAGTTGAGAACAAACCGCTTATTTGATGAGATTTTGGAGAGAAATGTTT 480
Qy 481. TTTGGCATGAGATGAGGCGCAACCACTAGGAGCTTAATGCGCATTAACCTAAGC 540
Db 481. TTTGGCATGAGATGAGGCGCAACCACTAGGAGCTTAATGCGCATTAACCTAAGC 540
Qy 541. TTCGAGAACAAAGTAATTTTTCAGGATCTTACTTATCTTCACTTCAACAGATGAAA 600
Db 541. TTCGAGAACAAAGTAATTTTTCAGGATCTTACTTATCTTCACTTCAACAGATGAAA 600
Qy 601. TATATTTGAG 610
Db 601. TATATTTGAG 610

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RESULT 4

US-10-218-654-82/c
Sequence 82, Application US/10218654
Publication No. US20030099609A1
GENERAL INFORMATION:
APPLICANT: Sim, Gek-Kee
APPLICANT: Yang, Shumin
APPLICANT: Drelitz, Matthew J.
APPLICANT: Wonderling, Ramani S.
TITLE OF INVENTION: CANINE AND FELINE IMMUNOREGULATORY PROTEINS, NUCLEIC
TITLE OF INVENTION: ACID MOLECULES, AND USES THEREOF
FILE REFERENCE: IM-2-C1
CURRENT APPLICATION NUMBER: US/10/218, 654
CURRENT FILING DATE: 2002-08-13
PRIOR APPLICATION NUMBER: US/09/322, 409
PRIOR FILING DATE: 1999-05-28
PRIOR APPLICATION NUMBER: 60/087, 306
PRIOR FILING DATE: 1998-05-29
NUMBER OF SEQ ID NOS: 154
SOFTWARE: Patentin Ver. 2.0

SEQ ID NO 82
LENGTH: 610
TYPE: DNA
ORGANISM: Canis familiaris
US-10-218-654-82

Query Match 100.0%; Score 610; DB 14; Length 610;
Best Local Similarity 100.0%; Pred. No. 66-179;
Matches 610; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

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Qy 1. CAAGGCAAAACATGACATTTCAAGGCTATGAGATGCTTCTGAAATTTGAGTTGCTAGC 60
Db 610. CAAGGCAAAACATGACATTTCAAGGCTATGAGATGCTTCTGAAATTTGAGTTGCTAGC 551
Qy 61. TCTTGGGGCTGCTATGTTTCTGCTTCTGCTAGAAAATCCATGATAGACTGTGGC 120
Db 61. TCTTGGGGCTGCTATGTTTCTGCTTCTGCTAGAAAATCCATGATAGACTGTGGC 491
Qy 121. AGAGACCTTGACACTGCTCTCACTCATCGAATTTGGCTGATAGCGCATGGAACTGTAT 180
Db 121. AGAGACCTTGACACTGCTCTCACTCATCGAATTTGGCTGATAGCGCATGGAACTGTAT 180
Qy 181. GATTCTACTCTGAAAATAAATCAACCACTGTGATTAAGAAGTTTTCAGGGTAT 240
Db 181. GATTCTACTCTGAAAATAAATCAACCACTGTGATTAAGAAGTTTTCAGGGTAT 240
Qy 241. AGACACATTAAGAACCAACCTGCCACGCGGAGGCTGTGATTAATCTATTCAAAACCTT 300
Db 241. AGACACATTAAGAACCAACCTGCCACGCGGAGGCTGTGATTAATCTATTCAAAACCTT 300
Qy 301. GTCTTTAATAAAGAACATAGAGCGCAAAAAAGGTGTGACAGAGAAAGATGAG 360
Db 301. GTCTTTAATAAAGAACATAGAGCGCAAAAAAGGTGTGACAGAGAAAGATGAG 360
Qy 361. AGTGACAAAGTTCTAGACTACCTGCAAGTATTTCTGGTATTAATAACCGAGTGAC 420
Db 361. AGTGACAAAGTTCTAGACTACCTGCAAGTATTTCTGGTATTAATAACCGAGTGAC 420
Qy 421. ACCGGAAGTTGAGAACAAACCGCTTATTTGATGAGATTTTGGAGAGAAATGTTT 480
Db 421. ACCGGAAGTTGAGAACAAACCGCTTATTTGATGAGATTTTGGAGAGAAATGTTT 480
Qy 481. TTTGGCATGAGATGAGGCGCAACCACTAGGAGCTTAATGCGCATTAACCTAAGC 540
Db 481. TTTGGCATGAGATGAGGCGCAACCACTAGGAGCTTAATGCGCATTAACCTAAGC 540
Qy 541. TTCGAGAACAAAGTAATTTTTCAGGATCTTACTTATCTTCACTTCAACAGATGAAA 600
Db 541. TTCGAGAACAAAGTAATTTTTCAGGATCTTACTTATCTTCACTTCAACAGATGAAA 600
Qy 601. TATATTTGAG 610
Db 601. TATATTTGAG 610

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RESULT 5

US-10-262-439-80
Sequence 80, Application US/10262439
Publication No. US20030143196A1
GENERAL INFORMATION:
APPLICANT: Sim, Gek-Kee
APPLICANT: Yang, Shumin
APPLICANT: Drelitz, Matthew J.
APPLICANT: Wonderling, Ramani S.
TITLE OF INVENTION: CANINE AND FELINE IMMUNOREGULATORY PROTEINS, NUCLEIC
TITLE OF INVENTION: ACID MOLECULES, AND USES THEREOF
FILE REFERENCE: IM-2-C2
CURRENT APPLICATION NUMBER: US/10/262, 439
CURRENT FILING DATE: 2002-09-30
PRIOR APPLICATION NUMBER: US/09/451, 527
PRIOR FILING DATE: 1999-12-01
PRIOR APPLICATION NUMBER: 09/322, 409
PRIOR FILING DATE: 1999-05-28

;; PRIOR APPLICATION NUMBER: 60/087,306
;; PRIOR FILING DATE: 1998-05-29
;; NUMBER OF SEQ ID NOS: 174
;; SOFTWARE: PatentIn Ver. 2.0
;; SEQ ID NO 80
;; LENGTH: 610
;; TYPE: DNA
;; ORGANISM: Canis familiaris
;; FEATURE:
;; NAME/KEY: CDS
;; LOCATION: (29)..(430)
US-10-262-439-80

Query Match 100.0%; Score 610; DB 15; Length 610;
Best Local Similarity 100.0%; Pred. No. 66-179;
Matches 610; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 CAAGGCAAAACATGAACTTTCAGAGCTATGAGAAATCCCATGAATAGACTGTGGC 60
Db 1 CAAGGCAAAACATGAACTTTCAGAGCTATGAGAAATCCCATGAATAGACTGTGGC 60
Qy 61 TCTTGGGGCTGCTATGTTTCTGCTTGTGTAAGAAATCCCATGAATAGACTGTGGC 120
Db 61 TCTTGGGGCTGCTATGTTTCTGCTTGTGTAAGAAATCCCATGAATAGACTGTGGC 120
Qy 121 AGAGACCTTGACACTGCTCTCCACTGATCGAACTTGCTGATAGCGAGTGGAACTGAT 180
Db 121 AGAGACCTTGACACTGCTCTCCACTGATCGAACTTGCTGATAGCGAGTGGAACTGAT 180
Qy 181 GATTCTCTACTCTGAAAAATATAATACCACTGTGATTAAGAAATTTTTCAGGGTAT 240
Db 181 GATTCTCTACTCTGAAAAATATAATACCACTGTGATTAAGAAATTTTTCAGGGTAT 240
Qy 241 AGACACATTTGAAAGAACCACTGCGCCACGGGGAGGCTGTGATTAACCTATTCAAAATT 300
Db 241 AGACACATTTGAAAGAACCACTGCGCCACGGGGAGGCTGTGATTAACCTATTCAAAATT 300
Qy 301 GTCTTTAATAAAGAACATAGAGCGCCAAAAAAGGTGTGACAGAGAAAGATGAG 360
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Qy 361 AGTACAAAGTTCTTAAGACATGAGAGGCTGCTGATTAATAACCCGAGTGAG 420
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Db 421 ACCGGAAGTTGAGAACAAACCGGCTTATTTAGTGAAGATTTTGGAGAAATGGTTT 480
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Qy 601 TATATTTGAG 610
Db 601 TATATTTGAG 610

RESULT 6

US-10-262-439-82/c
; Sequence 82, Application US/10262439
; Publication No. US20030143196A1
; GENERAL INFORMATION:
; APPLICANT: Sim, Gek-Kee
; APPLICANT: Yang, Shumin
; APPLICANT: Dreibitz, Matthew J.
; APPLICANT: Wondertling, Ramani S.
; TITLE OF INVENTION: CANINE AND FELINE IMMUNOREGULATORY PROTEINS, NUCLEIC
; TITLE OF INVENTION: ACID MOLECULES, AND USES THEREOF

;; FILE REFERENCE: IM-2-C2
;; CURRENT APPLICATION NUMBER: US/10/262,439
;; CURRENT FILING DATE: 2002-09-30
;; PRIOR APPLICATION NUMBER: US/09/451,527
;; PRIOR FILING DATE: 1999-12-01
;; PRIOR APPLICATION NUMBER: 09/322,409
;; PRIOR FILING DATE: 1999-05-28
;; PRIOR APPLICATION NUMBER: 60/087,306
;; PRIOR FILING DATE: 1998-05-29
;; NUMBER OF SEQ ID NOS: 174
;; SOFTWARE: PatentIn Ver. 2.0
;; SEQ ID NO 82
;; LENGTH: 610
;; TYPE: DNA
;; ORGANISM: Canis familiaris
US-10-262-439-82

Query Match 100.0%; Score 610; DB 15; Length 610;
Best Local Similarity 100.0%; Pred. No. 66-179;
Matches 610; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 CAAGGCAAAACATGAACTTTCAGAGCTATGAGAAATCCCATGAATAGACTGTGGC 60
Db 610 CAAGGCAAAACATGAACTTTCAGAGCTATGAGAAATCCCATGAATAGACTGTGGC 551
Qy 61 TCTTGGGGCTGCTATGTTTCTGCTTGTGTAAGAAATCCCATGAATAGACTGTGGC 120
Db 550 TCTTGGGGCTGCTATGTTTCTGCTTGTGTAAGAAATCCCATGAATAGACTGTGGC 491
Qy 121 AGAGACCTTGACACTGCTCTCCACTGATCGAACTTGCTGATAGCGAGTGGAACTGAT 180
Db 121 AGAGACCTTGACACTGCTCTCCACTGATCGAACTTGCTGATAGCGAGTGGAACTGAT 180
Qy 181 GATTCTCTACTCTGAAAAATATAATACCACTGTGATTAAGAAATTTTTCAGGGTAT 240
Db 181 GATTCTCTACTCTGAAAAATATAATACCACTGTGATTAAGAAATTTTTCAGGGTAT 240
Qy 241 AGACACATTTGAAAGAACCACTGCGCCACGGGGAGGCTGTGATTAACCTATTCAAAATT 300
Db 241 AGACACATTTGAAAGAACCACTGCGCCACGGGGAGGCTGTGATTAACCTATTCAAAATT 300
Qy 301 GTCTTTAATAAAGAACATAGAGCGCCAAAAAAGGTGTGACAGAGAAAGATGAG 360
Db 301 GTCTTTAATAAAGAACATAGAGCGCCAAAAAAGGTGTGACAGAGAAAGATGAG 360
Qy 361 AGTACAAAGTTCTTAAGACATGAGAGGCTGCTGATTAATAACCCGAGTGAG 420
Db 361 AGTACAAAGTTCTTAAGACATGAGAGGCTGCTGATTAATAACCCGAGTGAG 420
Qy 421 ACCGGAAGTTGAGAACAAACCGGCTTATTTAGTGAAGATTTTGGAGAAATGGTTT 480
Db 421 ACCGGAAGTTGAGAACAAACCGGCTTATTTAGTGAAGATTTTGGAGAAATGGTTT 480
Qy 481 TTTGGCGATGAAATGAGGCGCAACCAAGTAGGAGCTTAATGCGCAGTAACTAAGC 540
Db 481 TTTGGCGATGAAATGAGGCGCAACCAAGTAGGAGCTTAATGCGCAGTAACTAAGC 540
Qy 541 TTTCAGAGCAAAAGTAATATTTTCAGGCACTCTACTTATCATCTTCAACAGATGAAA 600
Db 541 TTTCAGAGCAAAAGTAATATTTTCAGGCACTCTACTTATCATCTTCAACAGATGAAA 600
Qy 601 TATATTTGAG 610
Db 601 TATATTTGAG 610

RESULT 7

US-10-787-382-4
; Sequence 4, Application US/10787382
; Publication No. US20040191868A1
; GENERAL INFORMATION:
; APPLICANT: Yang, Shumin
; APPLICANT: McCall, Catherine A.

APPLICANT: Weber, Eric R.
TITLE OF INVENTION: CANINE AND FELINE IMMUNOREGULATORY PROTEINS, NUCLEIC
ACID MOLECULES, AND USES THEREOF
FILE REFERENCE: IM-2-C1-C1
CURRENT APPLICATION NUMBER: US/10/787,382
CURRENT FILING DATE: 2004-02-24
PRIOR APPLICATION NUMBER: US/09/755,633
PRIOR FILING DATE: 2001-01-05
PRIOR APPLICATION NUMBER: 09/322,409
PRIOR FILING DATE: 1999-05-28
PRIOR APPLICATION NUMBER: 60/087,306
PRIOR FILING DATE: 1998-05-29
NUMBER OF SEQ ID NOS: 21
SOFTWARE: PatentIn Ver. 2.1
SEQ ID NO 4
LENGTH: 610
TYPE: DNA
ORGANISM: Canis familiaris
FEATURE:
NAME/KEY: CDS
LOCATION: (129)..(430)
US-10-787-382-4

Query Match 100.0%; Score 610; DB 19; Length 610;
Best Local Similarity 100.0%; Pred. No. 6e-179;
Matches 610; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 CAAAGCAAAACATGAACTTTTCAGAGCTATGAGAAATGCTTGAATTTGAGTTGCTAGC 60
DB 1 CAAAGCAAAACATGAACTTTTCAGAGCTATGAGAAATGCTTGAATTTGAGTTGCTAGC 60
QY 61 TCTTGGGGCTGCTATGTTTCTGCTTGTGTGTAAGAAATCCCATGAAATAGACTGTGGC 120
DB 61 TCTTGGGGCTGCTATGTTTCTGCTTGTGTGTAAGAAATCCCATGAAATAGACTGTGGC 120
QY 121 AGAGACCTTGACACTGCTCTCCACTCATGAACTTGGCTGATAGCGATGGAACTGAT 180
DB 121 AGAGACCTTGACACTGCTCTCCACTCATGAACTTGGCTGATAGCGATGGAACTGAT 180
QY 181 GATTCTTACTCTGTAATAAATCAACCACTGTGCTAATAAGAAATTTTTCAGGGTAT 240
DB 181 GATTCTTACTCTGTAATAAATCAACCACTGTGCTAATAAGAAATTTTTCAGGGTAT 240
QY 241 AGACACATTGAAGAACCAACCTGCCACGGGGAGGCTGTGATTAACCTATCCAAACTT 300
DB 241 AGACACATTGAAGAACCAACCTGCCACGGGGAGGCTGTGATTAACCTATCCAAACTT 300
QY 301 GTCTTTAATAAAGAACATATGAGCGCCCAAAAAAGGTGTGCAGGAGAAAGATGAG 360
DB 301 GTCTTTAATAAAGAACATATGAGCGCCCAAAAAAGGTGTGCAGGAGAAAGATGAG 360
QY 361 AGTACAAAGTTCTAGACTACCTGCAAGTATTTCTGGTGTAAATCAACCGAGTGAC 420
DB 361 AGTACAAAGTTCTAGACTACCTGCAAGTATTTCTGGTGTAAATCAACCGAGTGAC 420
QY 421 ACCGGAAGTTGAGAACCAACCGGCTTATGTAGTGAAGATTTTGGAGAAATGGTTT 480
DB 421 ACCGGAAGTTGAGAACCAACCGGCTTATGTAGTGAAGATTTTGGAGAAATGGTTT 480
QY 481 TTTGGCGATGAGATGAGGGCCAAACCAAGTAGGAACTTAATGAGCCAGTAACTAAGC 540
DB 481 TTTGGCGATGAGATGAGGGCCAAACCAAGTAGGAACTTAATGAGCCAGTAACTAAGC 540
QY 541 TTCAGAGCAAAAGTAATATTTTCAAGCATCTTACTTATCACTTATCAACAGATGAAA 600
DB 541 TTCAGAGCAAAAGTAATATTTTCAAGCATCTTACTTATCACTTATCAACAGATGAAA 600
QY 601 TATATTTGAG 610
DB 601 TATATTTGAG 610

RESULT 8

us-10-787-382-6/c
Sequence 6, Application US/10787382
Publication No. US20040191868A1
GENERAL INFORMATION:
APPLICANT: Yang, Shumin
APPLICANT: McCall, Catherine A.
TITLE OF INVENTION: CANINE AND FELINE IMMUNOREGULATORY PROTEINS, NUCLEIC
ACID MOLECULES, AND USES THEREOF
FILE REFERENCE: IM-2-C1-C1
CURRENT APPLICATION NUMBER: US/10/787,382
CURRENT FILING DATE: 2004-02-24
PRIOR APPLICATION NUMBER: US/09/755,633
PRIOR FILING DATE: 2001-01-05
PRIOR APPLICATION NUMBER: 09/322,409
PRIOR FILING DATE: 1999-05-28
PRIOR APPLICATION NUMBER: 60/087,306
PRIOR FILING DATE: 1998-05-29
NUMBER OF SEQ ID NOS: 21
SOFTWARE: PatentIn Ver. 2.1
SEQ ID NO 6
LENGTH: 610
TYPE: DNA
ORGANISM: Canis familiaris
US-10-787-382-6

Query Match 100.0%; Score 610; DB 19; Length 610;
Best Local Similarity 100.0%; Pred. No. 6e-179;
Matches 610; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 CAAAGCAAAACATGAACTTTTCAGAGCTATGAGAAATGCTTGAATTTGAGTTGCTAGC 60
DB 610 CAAAGCAAAACATGAACTTTTCAGAGCTATGAGAAATGCTTGAATTTGAGTTGCTAGC 551
QY 61 TCTTGGGGCTGCTATGTTTCTGCTTGTGTGTAAGAAATCCCATGAAATAGACTGTGGC 120
DB 550 TCTTGGGGCTGCTATGTTTCTGCTTGTGTGTAAGAAATCCCATGAAATAGACTGTGGC 491
QY 121 AGAGACCTTGACACTGCTCTCCACTCATGAACTTGGCTGATAGCGATGGAACTGAT 180
DB 490 AGAGACCTTGACACTGCTCTCCACTCATGAACTTGGCTGATAGCGATGGAACTGAT 431
QY 181 GATTCTTACTCTGTAATAAATCAACCACTGTGCTAATAAGAAATTTTTCAGGGTAT 240
DB 430 GATTCTTACTCTGTAATAAATCAACCACTGTGCTAATAAGAAATTTTTCAGGGTAT 371
QY 241 AGACACATTGAAGAACCAACCTGCCACGGGGAGGCTGTGATTAACCTATCCAAACTT 300
DB 370 AGACACATTGAAGAACCAACCTGCCACGGGGAGGCTGTGATTAACCTATCCAAACTT 311
QY 301 GTCTTTAATAAAGAACATATGAGCGCCCAAAAAAGGTGTGCAGGAGAAAGATGAG 360
DB 310 GTCTTTAATAAAGAACATATGAGCGCCCAAAAAAGGTGTGCAGGAGAAAGATGAG 251
QY 361 AGTACAAAGTTCTAGACTACCTGCAAGTATTTCTGGTGTAAATCAACCGAGTGAC 420
DB 250 AGTACAAAGTTCTAGACTACCTGCAAGTATTTCTGGTGTAAATCAACCGAGTGAC 191
QY 421 ACCGGAAGTTGAGAACCAACCGGCTTATGTAGTGAAGATTTTGGAGAAATGGTTT 480
DB 190 ACCGGAAGTTGAGAACCAACCGGCTTATGTAGTGAAGATTTTGGAGAAATGGTTT 131
QY 481 TTTGGCGATGAGATGAGGGCCAAACCAAGTAGGAACTTAATGAGCCAGTAACTAAGC 540
DB 130 TTTGGCGATGAGATGAGGGCCAAACCAAGTAGGAACTTAATGAGCCAGTAACTAAGC 71
QY 541 TTCAGAGCAAAAGTAATATTTTCAAGCATCTTACTTATCACTTATCAACAGATGAAA 600
DB 70 TTCAGAGCAAAAGTAATATTTTCAAGCATCTTACTTATCACTTATCAACAGATGAAA 11
QY 601 TATATTTGAG 610
DB 10 TATATTTGAG 1

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RESULT 9
US-09-755-633-7
; Sequence 7, Application US/09755633
; Patent No. US20020127200A1
; GENERAL INFORMATION:
; APPLICANT: Yang, Shumin
; APPLICANT: McCall, Catherine A.
; APPLICANT: Weber, Eric R.
; TITLE OF INVENTION: CANINE AND FELINE IMMUNOREGULATORY PROTEINS, NUCLEIC
; FILE REFERENCE: IM-2-C1-C1
; CURRENT APPLICATION NUMBER: US/09/755,633
; PRIOR FILING DATE: 1999-05-28
; PRIOR APPLICATION NUMBER: 60/087,306
; PRIOR FILING DATE: 1998-05-29
; NUMBER OF SEQ ID NOS: 21
; SOFTWARE: PatentIn Ver. 2.1
; SEQ ID NO 7
; LENGTH: 402
; TYPE: DNA
; ORGANISM: Canis familiaris
US-09-755-633-7

Query Match      65.9%; Score 402; DB 9; Length 402;
Best Local Similarity 100.0%; Pred. No. 2.8e-114;
Matches 402; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 29 ATGAGATGCTTCTGAAATTTGAGTTTGCTAGCTCTTGCGGCTGCGCTATGTTTCTGCTTT 88
DB 1 ATGAGATGCTTCTGAAATTTGAGTTTGCTAGCTCTTGCGGCTGCGCTATGTTTCTGCTTT 60
QY 89 GCTGTAGAAAATCCCATGAAATGACTGTGTGCAGAGACCTTGACACCTGCTTCCACTCAT 148
DB 61 GCTGTAGAAAATCCCATGAAATGACTGTGTGCAGAGACCTTGACACCTGCTTCCACTCAT 120
QY 149 CGAAGTGGCTGATAGGCGATGGGAACTGTATGATCTCTACTCTCGGAAATTAATAATCAC 208
DB 121 CGAAGTGGCTGATAGGCGATGGGAACTGTATGATCTCTACTCTCGGAAATTAATAATCAC 180
QY 209 CAACCTGTGATTAAGAAAGTTTTCAGGGTATAGACATTTGAAGAAACCAATGCCAC 268
DB 181 CAACCTGTGATTAAGAAAGTTTTCAGGGTATAGACATTTGAAGAAACCAATGCCAC 240
QY 269 GGGAGGCTGTGATTAATCTATTTCCAAAACCTTCTTTAATAAAGAACATAGAGCGC 328
DB 241 GGGAGGCTGTGATTAATCTATTTCCAAAACCTTCTTTAATAAAGAACATAGAGAGCGC 300
QY 329 CAAAAAAGAGGTGTCAGAGAAAGATGAGAGTGAACAAAGTTCTAGACTACCTGCAA 388
DB 301 CAAAAAAGAGGTGTCAGAGAAAGATGAGAGTGAACAAAGTTCTAGACTACCTGCAA 360
QY 389 GTATTTCTTGTTGTTAATAACACCGAGTGAACCGGAAAGT 430
DB 361 GTATTTCTTGTTGTTAATAACACCGAGTGAACCGGAAAGT 402

RESULT 10
US-09-755-633-8/C
; Sequence 8, Application US/09755633
; Patent No. US20020127200A1
; GENERAL INFORMATION:
; APPLICANT: Yang, Shumin
; APPLICANT: McCall, Catherine A.
; APPLICANT: Weber, Eric R.
; TITLE OF INVENTION: CANINE AND FELINE IMMUNOREGULATORY PROTEINS, NUCLEIC
; FILE REFERENCE: IM-2-C1-C1
; CURRENT APPLICATION NUMBER: US/09/755,633
; CURRENT FILING DATE: 2001-01-05
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; PRIOR APPLICATION NUMBER: 09/322,409
; PRIOR FILING DATE: 1999-05-28
; PRIOR APPLICATION NUMBER: 60/087,306
; PRIOR FILING DATE: 1998-05-29
; NUMBER OF SEQ ID NOS: 21
; SOFTWARE: PatentIn Ver. 2.1
; SEQ ID NO 8
; LENGTH: 402
; TYPE: DNA
; ORGANISM: Canis familiaris
US-09-755-633-8

Query Match      65.9%; Score 402; DB 9; Length 402;
Best Local Similarity 100.0%; Pred. No. 2.8e-114;
Matches 402; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 29 ATGAGATGCTTCTGAAATTTGAGTTTGCTAGCTCTTGCGGCTGCGCTATGTTTCTGCTTT 88
DB 402 ATGAGATGCTTCTGAAATTTGAGTTTGCTAGCTCTTGCGGCTGCGCTATGTTTCTGCTTT 343
QY 89 GCTGTAGAAAATCCCATGAAATGACTGTGTGCAGAGACCTTGACACCTGCTTCCACTCAT 148
DB 342 GCTGTAGAAAATCCCATGAAATGACTGTGTGCAGAGACCTTGACACCTGCTTCCACTCAT 283
QY 149 CGAAGTGGCTGATAGGCGATGGGAACTGTATGATCTCTACTCTCGGAAATTAATAATCAC 208
DB 282 CGAAGTGGCTGATAGGCGATGGGAACTGTATGATCTCTACTCTCGGAAATTAATAATCAC 223
QY 209 CAACCTGTGATTAAGAAAGTTTTCAGGGTATAGACATTTGAAGAAACCAATGCCAC 268
DB 222 CAACCTGTGATTAAGAAAGTTTTCAGGGTATAGACATTTGAAGAAACCAATGCCAC 163
QY 269 GGGAGGCTGTGATTAATCTATTTCCAAAACCTTCTTTAATAAAGAACATAGAGCGC 328
DB 162 GGGAGGCTGTGATTAATCTATTTCCAAAACCTTCTTTAATAAAGAACATAGAGCGC 103
QY 329 CAAAAAAGAGGTGTCAGAGAAAGATGAGAGTGAACAAAGTTCTAGACTACCTGCAA 388
DB 102 CAAAAAAGAGGTGTCAGAGAAAGATGAGAGTGAACAAAGTTCTAGACTACCTGCAA 43
QY 389 GTATTTCTTGTTGTTAATAACACCGAGTGAACCGGAAAGT 430
DB 42 GTATTTCTTGTTGTTAATAACACCGAGTGAACCGGAAAGT 1

RESULT 11
US-10-218-654-83
; Sequence 83, Application US/10218654
; Publication No. US2003099609A1
; GENERAL INFORMATION:
; APPLICANT: Sim, Gek-Kee
; APPLICANT: Yang, Shumin
; APPLICANT: Dreitz, Matthew J.
; APPLICANT: Wondertling, Ramani S.
; TITLE OF INVENTION: CANINE AND FELINE IMMUNOREGULATORY PROTEINS, NUCLEIC
; FILE REFERENCE: IM-2-C1
; CURRENT APPLICATION NUMBER: US/10/218,654
; CURRENT FILING DATE: 2002-08-13
; PRIOR APPLICATION NUMBER: US/09/322,409
; PRIOR FILING DATE: 1999-05-28
; PRIOR APPLICATION NUMBER: 60/087,306
; PRIOR FILING DATE: 1998-05-29
; NUMBER OF SEQ ID NOS: 154
; SOFTWARE: PatentIn Ver. 2.0
; SEQ ID NO 83
; LENGTH: 402
; TYPE: DNA
; ORGANISM: Canis familiaris
US-10-218-654-83

Query Match      65.9%; Score 402; DB 14; Length 402;
Best Local Similarity 100.0%; Pred. No. 2.8e-114;
```

Matches 402; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 29 ATGAGAAATGCTTGAATTTGAGTTTGTAGCTCTTGGGGGCTGATGTTTGGCCCTT 88
DB 1 ATGAGAAATGCTTGAATTTGAGTTTGTAGCTCTTGGGGGCTGATGTTTGGCCCTT 60
QY 89 GCTGTAGAAAATCCCATGATAGACTGTGTGCGAGAGACTTGACACTGCTCTCCACTAT 148
DB 61 GCTGTAGAAAATCCCATGATAGACTGTGTGCGAGAGACTTGACACTGCTCTCCACTAT 120
QY 149 CGAACTTGGCTGATAGGCGATGCGAACTGTATGATCTTCTGAAAAATAAAATAC 208
DB 121 CGAACTTGGCTGATAGGCGATGCGAACTGTATGATCTTCTGAAAAATAAAATAC 180
QY 209 CAATGTGCATTAAGAAGTTTTCAGGGTATAGACATTTGAAGAACAATGCGCCAC 268
DB 181 CAATGTGCATTAAGAAGTTTTCAGGGTATAGACATTTGAAGAACAATGCGCCAC 240
QY 269 GGGGAGGCTGTGATTAACCTATTCCTTTCTTTAATTAAGAACAATGAGCGC 328
DB 241 GGGGAGGCTGTGATTAACCTATTCCTTTCTTTAATTAAGAACAATGAGCGC 300
QY 329 CAAAAAAGAGTGTGCGAGAAAGATGAGAGTGAACAAGTTCTAGACTTACTGCA 388
DB 301 CAAAAAAGAGTGTGCGAGAAAGATGAGAGTGAACAAGTTCTAGACTTACTGCA 360
QY 389 GTATTTCTGTGTATTAACACCGAGTGAACCGGAAAGT 430
DB 361 GTATTTCTGTGTATTAACACCGAGTGAACCGGAAAGT 402

RESULT 12
US-10-218-654-84/C
; Sequence 84, Application US/10218654
; Publication No. US2003009609A1
; GENERAL INFORMATION:
; APPLICANT: Sim, Gek-kee
; APPLICANT: Yang, Shumin
; APPLICANT: Dreitz, Matthew J.
; APPLICANT: Wonderling, Ramani S.
; TITLE OF INVENTION: CANINE AND FELINE IMMUNOREGULATORY PROTEINS, NUCLEIC
; FILE REFERENCE: IM-2-C1
; CURRENT APPLICATION NUMBER: US/10/218,654
; PRIOR FILING DATE: 2002-08-13
; PRIOR APPLICATION NUMBER: US/09/322,409
; PRIOR FILING DATE: 1999-05-28
; PRIOR APPLICATION NUMBER: 60/087,306
; PRIOR FILING DATE: 1998-05-29
; NUMBER OF SEQ ID NOS: 154
; SOFTWARE: PatentIn Ver. 2.0
; SEQ ID NO 84
; LENGTH: 402
; TYPE: DNA
; ORGANISM: Canis familiaris
US-10-218-654-84

Query Match 65.9%; Score 402; DB 14; Length 402;
Best Local Similarity 100.0%; Pred. No. 2.8e-114;
Matches 402; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 209 CAATGTGCATTAAGAAGTTTTCAGGGTATAGACATTTGAAGAACAATGCGCCAC 268
DB 222 CAATGTGCATTAAGAAGTTTTCAGGGTATAGACATTTGAAGAACAATGCGCCAC 163
QY 269 GGGGAGGCTGTGATTAACCTATTCCTTTCTTTAATTAAGAACAATGAGCGC 328
DB 162 GGGGAGGCTGTGATTAACCTATTCCTTTCTTTAATTAAGAACAATGAGCGC 103
QY 329 CAAAAAAGAGTGTGCGAGAAAGATGAGAGTGAACAAGTTCTAGACTTACTGCA 388
DB 102 CAAAAAAGAGTGTGCGAGAAAGATGAGAGTGAACAAGTTCTAGACTTACTGCA 43
QY 389 GTATTTCTGTGTATTAACACCGAGTGAACCGGAAAGT 430
DB 42 GTATTTCTGTGTATTAACACCGAGTGAACCGGAAAGT 1

RESULT 13
US-10-262-439-83
; Sequence 83, Application US/10262439
; Publication No. US20030143196A1
; GENERAL INFORMATION:
; APPLICANT: Sim, Gek-kee
; APPLICANT: Yang, Shumin
; APPLICANT: Dreitz, Matthew J.
; APPLICANT: Wonderling, Ramani S.
; TITLE OF INVENTION: CANINE AND FELINE IMMUNOREGULATORY PROTEINS, NUCLEIC
; FILE REFERENCE: IM-2-C2
; CURRENT APPLICATION NUMBER: US/10/262,439
; PRIOR FILING DATE: 2002-09-30
; PRIOR APPLICATION NUMBER: US/09/451,527
; PRIOR FILING DATE: 1999-12-01
; PRIOR APPLICATION NUMBER: 09/322,409
; PRIOR FILING DATE: 1999-05-28
; PRIOR APPLICATION NUMBER: 60/087,306
; PRIOR FILING DATE: 1998-05-29
; NUMBER OF SEQ ID NOS: 174
; SOFTWARE: PatentIn Ver. 2.0
; SEQ ID NO 83
; LENGTH: 402
; TYPE: DNA
; ORGANISM: Canis familiaris
US-10-262-439-83

Query Match 65.9%; Score 402; DB 15; Length 402;
Best Local Similarity 100.0%; Pred. No. 2.8e-114;
Matches 402; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 389 G T A T T T C T T G T G T A A T A A C A C C G A G T G G A C A C C G G A A A G T 430
| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
Db 361 G T A T T T C T T G G T G T A A T A A C A C C G A G T G G A C A C C G G A A A G T 402

RESULT 14

```

US-10-262-439-84/C
Sequence 84, Application US/10262439
Publication No. US20030143196A1
GENERAL INFORMATION:
APPLICANT: Sim, Gek-kee
APPLICANT: Yang, Shumlin
APPLICANT: Drelitz, Matthew J.
APPLICANT: Wondertling, Ramani S.
TITLE OF INVENTION: CANINE AND FELINE IMMUNOREGULATORY PROTEINS, NUCLEIC
TITLE OF INVENTION: ACID MOLECULES, AND USES THEREOF
FILE REFERENCE: IM-2-C2
CURRENT APPLICATION NUMBER: US/10/262,439
CURRENT FILING DATE: 2002-09-30
PRIOR APPLICATION NUMBER: US/09/451,527
PRIOR FILING DATE: 1999-12-01
PRIOR APPLICATION NUMBER: 09/322,409
PRIOR FILING DATE: 1999-05-28
PRIOR APPLICATION NUMBER: 60/087,306
PRIOR FILING DATE: 1998-05-29
NUMBER OF SEQ ID NOS: 174
SOFTWARE: PatentIn Ver. 2.0
SEQ ID NO 84
LENGTH: 402
TYPE: DNA
ORGANISM: Canis familiaris
US-10-262-439-84

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Query Match	65.9%	Score 402;	DB 15;	Length 402;
Best Local Similarity	100.0%	Pred. No. 2.8e-114;		
Matches 402;	Conservative 0;	Mismatches 0;	Indels 0;	Gaps 0;

QY	29	ATAGAGATGCTTCTGAAATTTGAGTTTGCTAGCTCTGGGGGCGCTATGTTTTCGCCTTT	88
Db	402	ATGAGAAATGCTTCTGAAATTTGAGTTTGTCTAGCTCTGGGGGCGCTATGTTTTCGCCTTT	34
QY	89	GCTGTAGAAAAATCCCATGATAGACTGTGTGGCAGAGACCTTGACACTGCTCTCCACTAT	148
Db	342	GCTGTAGAAAAATCCCATGATAGACTGTGTGGCAGAGACCTTGACACTGCTCTCCACTAT	28
QY	149	CGAATCTGGCTGATATAGCCGATGGGAACCTGATGATTCCTACTCTCGAAAAATPAAAAATCAC	208
Db	282	CGAATCTGGCTGATATAGCCGATGGGAACCTGATGATTCCTACTCTCGAAAAATPAAAAATCAC	222
QY	209	CAACTGTGCATTTAAAGAGTTTTCAGGGTATPAGACACTTGAAGAACCAAACTGGCCAC	268
Db	222	CAACTGTGCATTTAAAGAGTTTTCAGGGTATPAGACACTTGAAGAACCAAACTGGCCAC	168
QY	269	GGGAGGCGCTGTGATAAATTCACAAACTGTCTTTATPAAAAAGAACACATAGAGCGC	328
Db	162	GGGAGGCGCTGTGATAAATTCACAAACTGTCTTTATPAAAAAGAACACATAGAGCGC	108
QY	329	CAAAAAAAAAGGTGTGCAGAGAGAAAGATGAGATGACAAAGTTCTTGACTACTGTCAA	388
Db	102	CAAAAAAAAAGGTGTGCAGAGAGAAAGATGAGATGACAAAGTTCTTGACTACTGTCAA	43
QY	389	GTAATTCCTGTGTAAATPAAACACCGAGTGGACACCGGAAAGT	430
Db	42	GTAATTCCTGTGTAAATPAAACACCGAGTGGACACCGGAAAGT 1	

RESULT 15
US-10-787-382-7

```

; Sequence 7, Application US/10787382
; Publication No. US20040191868A1
;
; GENERAL INFORMATION:
; APPLICANT: Yang, Shumin
; APPLICANT: McCall, Catherine A.

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Best Local Similarity	100.0%;	Pred. No. 2.8e-114;		
Matches 402;	Conservative 0;	Mismatches 0;	Indels 0;	Gaps 0;

Qy	29	ATAGAAATCCTCTGAATTGAGTTGGTACTCTGGGGGTGGCTATGTTTCTGCTT	88
Db	1	ATGAGAAATCCTCTGAATTTGAGTTTGTACTCTTGGGGCTGGCTATGTTTCTGCTT	60
Qy	89	GCTGTGAAAAATCCCATGATAGACTGGTGGCAGAGACTTGAACATGCTCTCCACTCAT	148
Db	61	GCTGTGAAAAATCCCATGATAGACTGGTGGCAGAGACTTGAACATGCTCTCCACTCAT	120
Qy	149	CGAATCTGGCTGATAGGCGATGGGAACTGATGATTTCTACTCTGAAAAATAAAAATCAC	208
Db	121	CGAATCTGGCTGATAGGCGATGGGAACTGATGATTTCTACTCTGAAAAATAAAAATCAC	180
Qy	209	CAACTGTGATTAAGAAGTTTTTCAAGGTTATAGACATTTGAAGAACCAAACTGCCAC	268
Db	181	CAACTGTGATTAAGAAGTTTTTCAAGGTTATAGACATTTGAAGAACCAAACTGCCAC	240
Qy	269	GGGAGAGCTGTGGATTAACCTATTCAAAACTTGTTTAAATAAAAAGAACATAGAGCGC	328
Db	241	GGGAGAGCTGTGGATTAACCTATTCAAAACTTGTTTAAATAAAAAGAACATAGAGCGC	300
Qy	329	CAAAAAAAAAGTGTGCACGAGAAAAAGATGAGAGTGAACAAAGTTCTTAGACTACCTGCA	388
Db	301	CAAAAAAAAAGTGTGCACGAGAAAAAGATGAGAGTGAACAAAGTTCTTAGACTACCTGCA	360
Qy	389	GTAATTTCTTGTTAATTAACACCGAGTGGACACCGGAAAGT	430
Db	361	GTAATTTCTTGTTAATTAACACCGAGTGGACACCGGAAAGT	402

Search completed: August 7, 2005, 19:24:56
Job time : 507.007 secs

CDNA Library Arrayed by: The I.M.A.G.E. Consortium (LNL)
DNA Sequencing by: Neurogenomics Research Lab,
200 B EMBL, University of Iowa, Iowa City, IA-52242
anup-madan@iowa.edu
Jessica Fahay, Tim Nelson, Uae Goon Yoon and Anup Madan

Clone distribution: MGC clone distribution information can be found
through the I.M.A.G.E. Consortium/LNL at: <http://image.lnl.gov>
Series: Plate: Row: Column: 0
This clone has the following problem: frame shifted.
Location/Qualifiers

FEATURES

source

1. 817
/organism="Homo sapiens"
/mol_type="mRNA"
/db_xref="taxon:9606"
/clone="IMAGE:7216996"
/tissue_type="Synthetic constructs"
/clone_id="NIH_MGC_243"
/lab_host="TOP10"
/note="Vector: PCR Blunt II TOPO"

ORIGIN

Query Match 60.6%; Score 369.6; DB 3; Length 817;
Best Local Similarity 79.2%; Pred. No. 5.1e-93;
Matches 464; Conservative 0; Mismatches 119; Indels 3; Gaps 2;

VERSION CD559532.1 GI:31585600
EST.
KEYWORDS Homo sapiens (human)
SOURCE Homo sapiens
ORGANISM Homo sapiens
REFERENCE 1 (bases 1 to 456)
AUTHORS NIH-MGC <http://mgs.nci.nih.gov/>,
TITLE National Institutes of Health, Mammalian Gene Collection (MGC)
JOURNAL Unpublished (1999)
COMMENT Contact: Daniela S. Gerhard, Ph.D.
Office of Cancer Genomics
National Cancer Institute / NIH
Bldg. 31 Rm10A07 Bethesda, MD 20892
Email: CGAPbs-rcmail.nih.gov
Tissue Procurement: Narayan Bhat
CDNA Library Preparation: Bhat Laboratory
CDNA Library Arrayed by: The I.M.A.G.E. Consortium (LNL)
DNA Sequencing by: Agencourt Bioscience Corporation
Clone distribution: MGC clone distribution information can be
found through the I.M.A.G.E. Consortium/LNL at:
<http://image.lnl.gov>
Plate: IRBK row: 9 column: 11
High quality sequence stop: 456.
Location/Qualifiers

FEATURES

source

1. 456
/organism="Homo sapiens"
/mol_type="mRNA"
/db_xref="taxon:9606"
/clone="IMAGE:6971772"
/tissue_type="mixed"
/lab_host="DH5A (T1 phage-resistant)"
/note="Vector: pDNR-Dual; Site 1: loxp-SalI; Site 2:
loxP-HindIII; Clones from this library have been
PCR-amplified using gene-specific primers to contain the
complete open reading frame (based on known gene sequences
available from NCBI's RefSeq). Template for PCR is cDNA
derived from either pooled cytoplasmic polyA RNA from 30
cells lines or pooled total RNA from 10 different tissues
(from BD Biosciences/Clontech and Washington University).
PCR products are directionally cloned into the loxp sites
of the pDNR-Dual vector. Library constructed by Dr.
Narayan Bhat, Earl Bere III and Hongling Liao (Gene
Expression Laboratory, Research Technology Program, SAIC
Frederick, NCI-Frederick, Frederick, MD 21702). For
information on which gene each clone represents, please
visit our anonymous ftp site at
ftp://image.lnl.gov/image/rearrayed_plates/IRBK.presv.dat
a Note: this is a NIH_MGC Library."

ORIGIN

Query Match 50.5%; Score 307.8; DB 6; Length 456;
Best Local Similarity 79.8%; Pred. No. 1.2e-75;
Matches 363; Conservative 0; Mismatches 92; Indels 0; Gaps 0;

QY 8 AACACTGACATTTGAGAGCTATGAGATGCTTCTGATTTGAGTTGCTAGCTCTTGGG 67
DB 1 AAGAGCAAGCGTTTCAAGAGCATGAGAGTCTTCTGATTTGAGTTGCTAGCTCTTGA 60
QY 68 GCTGCTATGTTTCTGCTTCTGCTGTAAGAAATCCCATGATAGACTGTGTGAGAGACC 127
DB 61 GCTGCTATGTTTCTGCTTCTGCTGTAAGAAATCCCATGATAGACTGTGTGAGAGACC 120
QY 128 TTGACACTGCTCTCCACTGATGAACTGTGCTATAGCGATAGGAACTGATGATTCCT 187
DB 121 TTGACACTGCT 180
QY 188 ACTCTGAAATTAATTAATCAACAAGTGTGATTAAGAGTTTTCAGGCTATAGACACA 247
DB 181 GTTCTCTGATATTAATTAATCAACAAGTGTGATTAAGAGTTTTCAGGCTATAGACACA 240
QY 248 TTGAGAAACCAACTGCCCCAGGGAGAGCTGTGATTAACCTATTCACAACTTGTCTTTA 307

QY 539 GCTTCAGAGCAAAAGTAAATTTTCAGGCACTCTACTACTTATCA 584
DB 558 ACTTCAGAGGGAAGTAAATTTTCAGGCACTACTGACACTTGGCA 603

RESULT 2
CD559532 456 bp mRNA linear EST 11-JUN-2003
LOCUS AGENCOURT 14497057 NIH_MGC_195 Homo sapiens cDNA clone
DEFINITION IMAGE:6971772 5', mRNA sequence.
ACCESSION CD559532

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Db      241 CTGAGAGCTAACTGTGCAAGGGGGTACTGTGAAAGACTATTCAAAAATTGTCTT 300
Qy      308 ATTAAGAACACATAGACGCCCAAAAAAGGTGTCCAGAGAAAGATGAGTACA 367
Db      301 ATTAAGAACATATGACGGCCAAAAAGGTGTGAGAGAAAGACGAGTAAAC 360
Qy      368 AAGTCTTACATACCGCAAGTATTTCTGTGTATTAACACGAGTGACACCGAA 427
Db      361 CAATCTTACATACCGCAAGTATTTCTGTGTATTAACACGAGTGTATATGAA 420
Qy      428 AGTTGAGAACAAACCGGCTTATTTAGTGTGAAAGAT 462
Db      421 AGTTGAGACTAACTGGTTTGTTCACACCAAGAT 455

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RESULT 3
CD559686/c 456 bp mRNA linear EST 11-JUN-2003

LOCUS AGENCOURT 14497093 NIH MGC 195 Homo sapiens cDNA clone
IMAGE:6971772 3', mRNA sequence.

ACCESSION CD559686
VERSION CD559686.1 GI:31585754
KEYWORDS EST.

SOURCE Homo sapiens (human)

ORGANISM Homo sapiens
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Primates; Catarrhini; Homnidae; Homo.

REFERENCE 1 (bases 1 to 456)
NIH-MGC http://mgi.nci.nih.gov/.

AUTHORS National Institutes of Health, Mammalian Gene Collection (MGC)

TITLE Unpublished (1999)

JOURNAL Contact: Daniela S. Gerhard, Ph.D.

COMMENT Office of Cancer Genomics
National Cancer Institute / NIH
Bldg. 31 Rm10A07 Bethesda, MD 20892

Email: cgaabp-remail.nih.gov

Tissue Procurement: Narayan Bhat

cDNA Library Preparation: Bhat Laboratory

DNA Sequencing by: Agencourt Bioscience Corporation

Clone distribution: MGC clone distribution information can be
found through the I.M.A.G.E. Consortium/MLML at:

http://image.llnl.gov column: 11
Plate: IRBK1 row: 9

High quality sequence stop: 456.

Location/Qualifiers

1. .456

/organism="Homo sapiens"

/mol_type="mRNA"

/db_xref="taxon:9606"

/clone="IMAGE:6971772"

/tissue_type="mixed"

/lab_host="DH5A (T1 phage-resistant)"

/clone_lib="NIH MGC 195"

/note="Vector: pDNR-Dual; Site 1: loxp-Sall; Site 2:
loxp-HindIII; Clones from this library have been
PCR-amplified using gene-specific primers to contain the
complete open reading frame (based on known gene sequences
available from NCBI's RefSeq). Template for PCR is cDNA
derived from either pooled cytoplasmic poly A RNA from 30
cells lines or pooled total RNA from 10 different tissues
(from BD Biosciences/Clontech and Washington University).
PCR products are directionally cloned into the loxp sites
of the pDNR-Dual vector. Library constructed by Dr.
Narayan Bhat, Earl Bere III and Hongling Liao (Gene
Expression Laboratory, Research Technology Program, SARC
Frederick, NCI-Frederick, Frederick, MD 21702). For
information on which gene each clone represents, please
visit our anonymous ftp site at
ftp://image.llnl.gov/image/rearrayed_plates/IRBK.presv.dat
a Note: this is a NIH_MGC Library."

ORIGIN

Query Match 50.4%; Score 307.2; DB 6; Length 456;
Best Local Similarity 79.6%; Pred. No. 1.8e-75;
Matches 363; Conservative 0; Mismatches 93; Indels 0; Gaps 0;

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Qy      6 CAAACACTGAACATTCAGAGCTATGAGAAATGCTTGTGAATTTAGTTTCTAGCTCTTG 65
Db      456 CCAAGAGAGAACTTTCAGAGCATGAGATGCTTGTGATTTGAGTTTCTAGCTCTTG 397
Qy      66 GGGCTGCTATGTTTCTGCTTGTGTGATAAATCCCAAGAAATGACCTGTGCAGAGA 125
Db      396 GACCTGCTATGTTTCTGCTTGTGTGATAAATCCCAAGAAATGACCTGTGTGAAAGA 337
Qy      126 CTTGACACTGCTCTCCACTCATGAACTTGAGTATGAGCGATGAGAACTGTGATTC 185
Db      336 CTTGACACTGCTCTTCTCATCATGAACTGTGTGATGACCAATGAGACTGTGAGATTC 277
Qy      186 CTACTCTGAAAAATAAAAATCACCACCTGTGATTAAGAAGTTTTCAGGATATAGACA 245
Db      276 CTGTTCTGTATCAATAAAAATCACCACCTGTGATTAAGAAGTTTTCAGGATATAGACA 217
Qy      246 CATTGAAGAACCAACTGCCAGGGAGGCTGTGATTAAGTATTCCTGCTTCTT 305
Db      216 CACTGAGAGTCAAACTGTGCAAGGGGTAAGTGTGAAAGCTATTAAGAAAACTTGTCT 157
Qy      306 TAATTAAGAACCATAGAGCGCCAAAAAGGTGTGACGAGAAAGATGAGAGTGA 365
Db      156 TAATTAAGAAATATCATTCAGCGCCAAAAAGGTGTGAGAGAAAGATGAGAGTGA 97
Qy      366 CAAAGTCTTACACTACCTCAGATATTTCTGTGTATTAACACCGAGTGAACACCGG 425
Db      96 ACCAATTCCTAGACTACCTCAGAGATTTCTGTGTATTAAGAACACCGAGTGAATATAG 37
Qy      426 AAGTTGAGAACCAACCGGCTTATTTAGTGTGAGAGA 461
Db      36 AAGTTGAGACTAACTGTTTGTTCAGGCCAAGA 1

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RESULT 4
CD559687/c 470 bp mRNA linear EST 19-NOV-2003

LOCUS AGENCOURT 14497029 NIH MGC 195 Homo sapiens cDNA clone
IMAGE:6971771 5', mRNA sequence.

ACCESSION CD559687
VERSION CD559687.2 GI:38453484
KEYWORDS EST.

SOURCE Homo sapiens (human)

ORGANISM Homo sapiens
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Primates; Catarrhini; Homnidae; Homo.

REFERENCE 1 (bases 1 to 470)
NIH-MGC http://mgi.nci.nih.gov/.

AUTHORS National Institutes of Health, Mammalian Gene Collection (MGC)

TITLE Unpublished (1999)

JOURNAL On Jun 10, 2003 this sequence version replaced gi:31585755.

COMMENT Contact: Daniela S. Gerhard, Ph.D.

Office of Cancer Genomics

National Cancer Institute / NIH

Bldg. 31 Rm10A07 Bethesda, MD 20892

Email: cgaabp-remail.nih.gov

Tissue Procurement: Narayan Bhat

cDNA Library Preparation: Bhat Laboratory

DNA Sequencing by: Agencourt Bioscience Corporation

Clone distribution: MGC clone distribution information can be
found through the I.M.A.G.E. Consortium/MLML at:

http://image.llnl.gov column: 10
Plate: IRBK1 row: 9

High quality sequence start: 14
High quality sequence stop: 470.

Location/Qualifiers

1. .470

/organism="Homo sapiens"

FEATURES

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/mol_type="mRNA"
/db_xref="taxon:9606"
/clone="IMAGE:6971771"
/issue_type="mixed"
/lab_host="DH5A (T1 phage-resistant)"
/clone_id="NIH_MGC_195"
/note="Vector: pDNR-Dual; Site 1: loxp-SalI; Site 2:
loxP-HindIII; Clones from this library have been
PCR-amplified using gene-specific primers to contain the
complete open reading frame (based on known gene sequences
available from NCBI's RefSeq). Template for PCR is cDNA
derived from either pooled cytoplasmic polyA RNA from 30
cells lines or pooled total RNA from 10 different tissues
(from BD Biosciences/Clontech and Washington University).
PCR products are directionally cloned into the loxp sites
of the pDNR-Dual vector. Library constructed by Dr.
Narayan Bhat, Earl Bere III and Hongling Liao (Gene
Expression Laboratory, Research Technology Program, SAIC
Frederick, NCI-Frederick, Frederick, MD 21702). For
information on which gene each clone represents, please
visit our anonymous ftp site at
ftp://image.llnl.gov/image/rearrayed_plates/IRBK.presv.dat
a Note: this is a NIH_MGC Library."

ORIGIN

Query Match 49.7%; Score 303.4; DB 6; Length 470;
Best Local Similarity 80.5%; Pred. No. 2.2e-74;
Matches 355; Conservative 0; Mismatches 86; Indels 0; Gaps 0;

QY 6 CAAACCTGAACATTGAGAGCTATGAGAAATGCTTGAATTTGAGTTGCTAGCTCTTG 65
DB 469 CAAACGAGAACGTTTCAGAGCAGTAGAGATCTTCGATTGAGTTGCTAGCTCTTG 410
QY 66 GGGCTGCTATGTTTCTGCTTCTGCTAGAAAATCCCATGAAATAGACTGGTGCAGAGA 125
DB 409 GAGCTGCTACGTATAGCCATCCCAAGAAATTTCCCAAGTCATGGTGAAGAAGA 350
QY 126 CTTTGAACAGCTCTCCATCATGAACTTGGCTGATAGGCGATGGAACTGATATTC 185
DB 349 CTTTGGACGCTCTTCTACTCATGAACTCGCTGATAGGCAATGAGACTCTGAGGATTC 290
QY 186 CTACTCCTGAAATTAATAATGACCACTGTCATTAAGAAGTTTTCAGGGTATTAACA 245
DB 289 CTGTTCTGTACATAAAATATACCACTGTGACATGAAAGAAATTTTCAGGAAATAGCA 230
QY 246 CATTGAAGAACCAAACTGCCACCGGAGGCTGTGATTAACATTTCCAAAACCTTGCTT 305
DB 229 CACTGAGAGTCAAACTGTGCAAGGGGTACTGTGAAAGCTATTCAAAAACCTTGCTT 170
QY 306 TAATTAAGAAACACATGAGCGCCAAAAGAGCTGTGACGAGAAAGATGAGAGTGA 365
DB 169 TAATTAAGAAATATATGACGCGCCAAAAGAGTGTGAGAGAAAGACGAGAGTAA 110
QY 366 CAAAGTTCTGACCTGACCTGCAAGTATTTCTTGTGTATTAACACCGAGTGCACCGG 425
DB 109 ACCAATTCCTAGACTACTGCAAGATTTCTTGATGTATGAACCGAGTGTAAATAG 50
QY 426 AAAGTTGAGAACAAACCGGCT 446
DB 49 AAAGTTGAGACTAAACGTGTT 29

RESULT 5
LOCUS CD559533 492 bp mRNA linear EST 26-NOV-2003
DEFINITION AGENCOURT 1449693 NIH_MGC_195 Homo sapiens cDNA clone
IMAGE:6971771 5', mRNA sequence.
ACCESSION CD559533
VERSION CD559533.2 GI:38558947
KEYWORDS EST.
SOURCE Homo sapiens (human)
ORGANISM Homo sapiens
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;

REFERENCE
AUTHORS NIH-MGC http://mgc.nci.nih.gov/.
TITLE National Institutes of Health, Mammalian Gene Collection (MGC)
JOURNAL Unpublished (1999)
COMMENT On Jun 10, 2003 this sequence version replaced gi:31585601.
Contact: Daniela S. Gerhard, Ph.D.
Office of Cancer Genomics
National Cancer Institute / NIH
Bldg. 31 Rm10A07 Bethesda, MD 20892
Email: cgaabs-remail.nih.gov
Tissue Procurement: Narayan Bhat
cDNA Library Preparation: Bhat Laboratory
cDNA Library Arrayed by: The I.M.A.G.E. Consortium (LINL)
DNA Sequencing by: Agencourt Bioscience Corporation
Clone distribution: MGC clone distribution information can be
found through the I.M.A.G.E. Consortium/LINL at:
http://image.llnl.gov
Plate: IRBK row: g column: 10
High quality sequence start: 14
High quality sequence stop: 492.
Location/Qualifiers

FEATURES

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/clone_id="NIH_MGC_195"
/note="Vector: pDNR-Dual; Site 1: loxp-SalI; Site 2:
loxP-HindIII; Clones from this library have been
PCR-amplified using gene-specific primers to contain the
complete open reading frame (based on known gene sequences
available from NCBI's RefSeq). Template for PCR is cDNA
derived from either pooled cytoplasmic polyA RNA from 30
cells lines or pooled total RNA from 10 different tissues
(from BD Biosciences/Clontech and Washington University).
PCR products are directionally cloned into the loxp sites
of the pDNR-Dual vector. Library constructed by Dr.
Narayan Bhat, Earl Bere III and Hongling Liao (Gene
Expression Laboratory, Research Technology Program, SAIC
Frederick, NCI-Frederick, Frederick, MD 21702). For
information on which gene each clone represents, please
visit our anonymous ftp site at
ftp://image.llnl.gov/image/rearrayed_plates/IRBK.presv.dat
a Note: this is a NIH_MGC Library."

ORIGIN

Query Match 49.7%; Score 303.4; DB 6; Length 492;
Best Local Similarity 80.5%; Pred. No. 2.2e-74;
Matches 355; Conservative 0; Mismatches 86; Indels 0; Gaps 0;

QY 6 CAAACCTGAACATTGAGAGCTATGAGAAATGCTTGAATTTGAGTTGCTAGCTCTTG 65
DB 33 CAAACGAGAACGTTTCAGAGCAGTAGAGATCTTCGATTGAGTTGCTAGCTCTTG 92
QY 66 GGGCTGCTATGTTTCTGCTTCTGCTAGAAAATCCCATGAAATAGACTGGTGCAGAGA 125
DB 93 GAGCTGCTACGTATAGCCATCCCAAGAAATTTCCCAAGTCATGGTGAAGAAGA 152
QY 126 CTTTGAACAGCTCTCCATCATGAACTTGGCTGATAGGCGATGGAACTGATGATTC 185
DB 153 CTTTGGACAGCTCTTCTACTCATGAACTCGCTGATAGGCAATGAGACTCTGAGATTC 212
QY 186 CTACTCCTGAAATTAATAATGACCACTGTCATTAAGAAGTTTTCAGGGTATTAACA 245
DB 213 CTGTTCTGTACATAAAATATACCACTGTGACCTGAAGAAATCTTTCAGGAAATAGCA 272
QY 246 CATTGAAGAACCAAACTGCCACCGGAGGCTGTGATTAACATTTCCAAAACCTTGCTT 305
DB 273 CACTGAGAGTCAAACTGTGCAAGGGGTACTGTGAGAAACATTAACAAAACCTTGCTT 332

QY 306 TAATAAAGAACACATGAGCGCCAAAGAGTGCAGAGAAAGATGAGAGTGA 365
 Db 333 TAATAAAGAAATACATGACGCGCCAAAGAGTGCAGAGAAAGATGAGAGTGA 392
 QY 366 CAAGTTCCTAGACTACCTGCAATATTTCTGTGTATTAACACGAGTGCACCCG 425
 Db 393 ACCAATTCCTAGACTACCTGCAAGAGTTCTTGTGTATTAACACGAGTGAATAG 452
 QY 426 AAAGTTGAGAACAAACCGCT 446
 Db 453 AAAGTTGAGACTAACTGTT 473

RESULT 6
 BC066281 456 bp mRNA linear HTC 12-FEB-2004
 LOCUS
 DEFINITION Homo sapiens cDNA clone IMAGE:6971770, containing frame-shift
 errors.

ACCESSION
 BC066281
 VERSION
 BC066281.1 GI:42490969
 KEYWORDS
 HTC.
 SOURCE
 Homo sapiens (human)

REFERENCE
 AUTHORS
 Mammalia; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
 Eukaryota; Eutheria; Primates; Catarrhini; Homnidae; Homo.
 1 (bases 1 to 456)

Strausberg, R.L., Feingold, E.A., Grouse, L.H., Derge, J.G.,
 Krausner, R.D., Collins, F.S., Wagner, L., Shenmen, C.M., Schuler, G.D.,
 Altschul, S.F., Zeeberg, B., Buetow, K.H., Schaefer, C.F., Bhat, N.K.,
 Hopkins, R.F., Jordan, H., Moore, T., Max, S.I., Wang, J., Hsieh, F.,
 Diatchenko, L., Marusina, K., Farmer, A.A., Rubin, G.M., Hong, L.,
 Stapleton, M., Soares, M.B., Bonaldo, M.F., Casavant, T.L.,
 Scheer, T.E., Brownstein, M.J., Ustin, T.B., Toshiyuki, S.,
 Carninci, P., Prange, C., Raha, S.S., Loquellano, N.A., Peters, G.J.,
 Abramson, R.D., Mullany, S.J., Bosak, S.A., McEwan, P.J.,
 McKernan, K.J., Malek, J.A., Gunaratne, P.H., Richards, S.,
 Werten, K.C., Hale, S., Garcia, A.M., Gay, L.J., Hult, S.W.,
 Villalón, D.K., Muzny, D.M., Sodergren, E.J., Lu, X., Gibbs, R.A.,
 Fahy, J., Helton, E., Kettman, M., Madan, A., Rodriguez, S.,
 Sanchez, A., Whiting, M., Madan, A., Young, A.C., Shevchenko, Y.,
 Bouffard, G.G., Blakesley, R.W., Touchman, J.W., Green, E.D.,
 Dickson, M.C., Rodriguez, A.C., Grimwood, J., Schmutz, J., Myers, R.M.,
 Butcherfield, Y.S., Krzywinski, M.I., Skalska, U., Smalls, D.E.,
 Schnerch, A., Schein, J.E., Jones, S.J. and Marra, M.A.
 Generation and initial analysis of more than 15,000 full-length
 human and mouse cDNA sequences
 Proc. Natl. Acad. Sci. U.S.A. 99 (26), 16899-16903 (2002)

JOURNAL
 PUBLISHED
 REFERENCE
 AUTHORS
 TITLE
 JOURNAL

REMARK
 COMMENT

Clone distribution: MGC clone distribution information can be found
 through the I.M.A.G.E. Consortium/LINL at: <http://image.lnl.gov>
 Series: IRAX Plate: 172 Row: a Column: 17
 This clone was selected for full length sequencing because it
 passed the following selection criteria: matched mRNA gi: 28559032

FEATURES
 source
 This clone has the following problem: frame shifted.
 Location/Qualifiers
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 /organism="Homo sapiens"
 /mol_type="mRNA"
 /db_xref="taxon:9606"
 /clone="IMAGE:6971770"
 /issue_type="PCR rescued clones"
 /clone_id="NIH_MGC_195"
 /lab_host="DH10B"
 /note="Vector: pDNR-Dual"

ORIGIN

Query Match 49.3%; Score 301; DB 3; Length 456;
 Best Local Similarity 80.1%; Pred. No. 1e-73;
 Matches 366; Conservative 0; Mismatches 90; Indels 1; Gaps 1;

QY 6 CAAGACTGAACATTTGAGAGCTATGAGAAATGCTTGAATTTGAGTTGCTAGCTCTTG 65
 Db 1 CAAGCAGAACGTTTCAGAGCCATGAGAGTCTTGTGCAATTTGAGTTGCTAGCTCTTG 60
 QY 66 GGGCTGCTATGTTTCTGCTTCTGCTGTAATAATCCATGAATAGCTGTGCAAGA 125
 Db 61 GAGCTGCTAGCTGTAAGCCATCCCAAGAAATTTCCACAGTGCATTGTGTAAGAAGA 120
 QY 126 CTTGACACTGCTCTCACTCATGCACTTGGCTGATGAGGAGTGGACCTGATGATTC 185
 Db 121 CTTGACACTGCTTCTTCACTCATGCACTTGGCTGATGAGGAGTGGACCTGATGATTC 180
 QY 186 CTACTCTGTAATAATAATCACCACCTGCTGCTTAAGAAGTTTTCAGGGATATAGACA 245
 Db 181 CTGTTCTGTAATAATAATCACCACCTGCTGCTGCTGATGAGGAGTGGACCTGATGATTC 240
 QY 246 CATGGAAGAACCAACCTGCCACGGGAGGCTGTGATTAATCTTCCAAATCTGTCTT 305
 Db 241 CACTGGAAGATCAACCTGCCACGGGAGGCTGTGATTAATCTTCCAAATCTGTCTT 300
 QY 306 TAATAAAGAACACATGAGCGCCAAAGAGTGCAGAGAAAGATGAGAGTGA 365
 Db 301 TAATAAAGAAATACATGACGCGCCAAAGAGTGCAGAGAAAGATGAGAGTGA 359
 QY 366 CAAGTTCCTAGACTACCTGCAATATTTCTGTGTATTAACACGAGTGCACCCG 425
 Db 360 ACCAATTCCTAGACTACCTGCAAGAGTTCTTGTGTATTAACACGAGTGAATAG 419
 QY 426 AAAGTTGAGAACAAACCGCTTATTTAGTGAAGAT 462
 Db 420 AAAGTTGAGACTAACTGTTTGTGTCAGCCAAAGAT 456

RESULT 7
 CD559534 478 bp mRNA linear EST 26-NOV-2003
 LOCUS
 DEFINITION AGENCOURT 14496928 NIH MGC 195 Homo sapiens cDNA clone
 IMAGE:6971770 5', mRNA sequence.
 ACCESSION
 CD559534
 VERSION
 CD559534.2 GI:38558949
 KEYWORDS
 EST.
 SOURCE
 Homo sapiens (human)
 ORGANISM
 Homo sapiens
 Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
 Mammalia; Eutheria; Primates; Catarrhini; Homnidae; Homo.

REFERENCE
 AUTHORS
 TITLE
 JOURNAL
 COMMENT
 NIH-MGC <http://imgc.nci.nih.gov/>.
 National Institutes of Health, Mammalian Gene Collection (MGC)
 Unpublished (1999)
 On Jun 10, 2003 this sequence version replaced gi:31585602.
 Contact: Daniela S. Gerhard, Ph.D.
 Office of Cancer Genomics
 National Cancer Institute / NIH
 Bldg. 31 Rm10A07 Bethesda, MD 20892
 Email: cgabs-remail.nih.gov
 Tissue Procurement: Narayan Bhat

CDNA Library Preparation: Bhat Laboratory
 DNA Sequencing Arrayed by: The I.M.A.G.E. Consortium (LINL)
 Clone distribution: MGC clone distribution information can be
 found through the I.M.A.G.E. Consortium/LINL at:
<http://image.jlnl.gov>
 Plate: IRBK1 row: 9 column: 09
 High quality sequence start: 3
 High quality sequence stop: 478.
 Location/Qualifiers

FEATURES

source

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/organism="Homo sapiens"
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/db_xref="taxon:9606"
/clone="IMAGE:6971770"
/tissue_type="mixed"
/lab_host="DH5A (TI phage-resistant)"
/notes="Vector: pDNR-Dual; Site 1: loxp-SalI; Site 2:
loxP-HindIII; Clones from this library have been
PCR-amplified using gene-specific primers to contain the
complete open reading frame (based on known gene sequences
available from NCBI's RefSeq). Template for PCR is cDNA
derived from either pooled cytoplasmic polyA RNA from 30
cells lines or pooled total RNA from 10 different tissues
(from BD Biosciences/Clontech and Washington University).
PCR products are directionally cloned into the loxp sites
of the pDNR-Dual vector. Library constructed by Dr.
Narayan Bhat, Earl Bere III and Hongling Liao (Gene
Expression Laboratory, Research Technology Program, SAIC
Frederick, NCI-Frederick, Frederick, MD 21702). For
information on which gene each clone represents, please
visit our anonymous ftp site at
ftp://image.jlnl.gov/image/rearranged_plates/IRBK.presv.dat
a Note: this is a NIH_MGC Library."
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ORIGIN

Query Match 49.3%; Score 301; DB 6; Length 478;
 Best Local Similarity 80.1%; Pred. No. 1e-73;
 Matches 366; Conservative 0; Mismatches 90; Indels 1; Gaps 1;

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6 CAAACACTGAACATTTGAGAGCTATGAGATGCTTGAATTTGAGTTGCTAGCTCTTG 65
22 CAAACGAGAACTTTAGAGCCATGAGATGCTTTCGCAATTTGAGTTGCTAGCTCTTG 81
66 GGGCTGCTATGTTTCTGCTTGTCTGTAGAAAATCCCATGATAGACTGTGGCAGAGA 125
82 GAGCTGCTAGTGTATGATCCATCCCAAGAAAATCCCAAGTGCATTGTGTAAAGAGA 141
126 CTTGACACTGCTCTCCACTCATCGAACTTGGCTGATAGGCGATGGAACTGTGATTTC 185
142 CTTGGACCTGCTTTTACTCATCGAACTGTGATAGGCAATGAACTCTGAGGATTC 201
186 CTACTCTGAAAATTAATACCAACTGCACTTAAGAAGTTTTTCAAGGTTATGACA 245
202 CTGTTCTGTACATAAAATACCAACTGTGCACTGAAGAAATCTTTCAGAGAAATGACA 261
246 CATTGAAGAACAACTGCCACGGGAGGCTGTGATAAATACTATCCAAACTTGTCTT 305
262 CACTGGAGATCAAACTGTGCAAGGGGTACTGTGAAAACATTAATAAACTTGTCTT 321
306 TAATTAAGAACACATGAGAGGCCAAAAAGGTGTGCAAGAGAAATGAGAGTGA 365
322 TAATTAAGAAATCATGACGGCCAAAAAAA-GTGTGAGAAAGAAAGACGAGAGTAA 380
366 CAAGTTCTAGACTACTGCAAGTATTTCTGTGTTATTAACACCGAGTGGACCCG 425
381 ACCAATTTCTAGACTACTGCAAGAGTTTCTGTGTTATGAACACCGAGTGGATATAG 440
426 AAAGTTGAGAACAAACCGGCTTATTTAGTGAAGAT 462
441 AAAGTTGAGACTAACTGTTTGTGCAAGCAAAAGAT 477
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RESULT 8
 CD559535
 LOCUS
 DEFINITION
 AGENCOURT 14496865 NIH MGC 195 Homo sapiens CDNA clone
 IMAGE:6971769 5', mRNA_sequence.
 ACCESSION
 VERSION
 KEYWORDS
 SOURCE
 ORGANISM
 Homo sapiens (human)
 Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
 Mammalia; Eutheria; Primates; Catarrhini; Homnidae; Homo.
 REFERENCE
 AUTHORS
 TITLE
 JOURNAL
 COMMENT
 On Jun 10, 2003 this sequence version replaced gi:31585603.
 Contact: Daniela S. Gernhard, Ph.D.
 Office of Cancer Genomics
 National Cancer Institute / NIH
 Bldg. 31 Rm10A07 Bethesda, MD 20892
 Email: c9apbs-remail.nih.gov
 Tissue Procurement: Narayan Bhat
 CDNA Library Preparation: Bhat Laboratory
 DNA Sequencing Arrayed by: The I.M.A.G.E. Consortium (LINL)
 Clone distribution: MGC clone distribution information can be
 found through the I.M.A.G.E. Consortium/LINL at:
<http://image.jlnl.gov>
 Plate: IRBK1 row: 9 column: 08
 High quality sequence stop: 463.
 Location/Qualifiers

FEATURES

source

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/clone="IMAGE:6971769"
/tissue_type="mixed"
/lab_host="DH5A (TI phage-resistant)"
/clone_lib="NIH MGC 195"
/notes="Vector: pDNR-Dual; Site 1: loxp-SalI; Site 2:
loxP-HindIII; Clones from this library have been
PCR-amplified using gene-specific primers to contain the
complete open reading frame (based on known gene sequences
available from NCBI's RefSeq). Template for PCR is cDNA
derived from either pooled cytoplasmic polyA RNA from 30
cells lines or pooled total RNA from 10 different tissues
(from BD Biosciences/Clontech and Washington University).
PCR products are directionally cloned into the loxp sites
of the pDNR-Dual vector. Library constructed by Dr.
Narayan Bhat, Earl Bere III and Hongling Liao (Gene
Expression Laboratory, Research Technology Program, SAIC
Frederick, NCI-Frederick, Frederick, MD 21702). For
information on which gene each clone represents, please
visit our anonymous ftp site at
ftp://image.jlnl.gov/image/rearranged_plates/IRBK.presv.dat
a Note: this is a NIH_MGC Library."
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ORIGIN

Query Match 49.3%; Score 300.8; DB 6; Length 463;
 Best Local Similarity 79.8%; Pred. No. 1.2e-73;
 Matches 367; Conservative 0; Mismatches 92; Indels 1; Gaps 1;

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4 GGCACACCTGAACATTTGAGAGCTATGAGATGCTTGAATTTGAGTTGCTAGCTCT 63
3 GACAAACGAGAACGTTTCAAGCCATGAGATGCTTTCGCAATTTAAGTTTCTAGCTCT 62
64 TGGAGCTGCTATGTTTCTGCTTTCCTGTAGAAAATCCCATGATAGACTGTGGCAGA 123
63 TGGAGCTGCTAGTGTATGATCCCAAGAAATTTCCACAAAGTGAATGTGTAAGA 122
124 GACCTTGAACACTGCTCTCCACTCATCGAACTTGGCTGATAGGCGATGGAACTGTAGAT 183
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Db 123 GACCTGCACTGCTTTCTACTGACGAACTGCTGATGACCAATGAGACTGAGAT 182
 Qy 184 TCCACTCCCTGAAATATAATATCCCACTGCTGATTAAGAGATTTTCAGGGATAGA 243
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 Qy 244 CACATGAGAAACCAACCTGCGCCGAGGAGCTGTGATTAACCTATTTCCAACTGTC 303
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 Qy 304 TTTATATTAAGACATAGAGCCG-AAAAAAAAAGGTGTGACAGAGAAATGAGAG 362
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 Qy 363 TGACAAAGTCTGACCTGACCTGCAAGTATTTCTGTGTATTAACACGAGTGACAC 422
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RESULT 9
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 LOCUS Homo sapiens cDNA clone IMAGE:6971768, containing frame-shift errors.
 ACCESSION BC066279
 VERSION BC066279.1 GI:42490901
 KEYWORDS HTC.
 SOURCE Homo sapiens (human)
 ORGANISM Homo sapiens
 Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Primates; Catarrhini; Hominiidae; Homo.
 REFERENCE 1 (bases 1 to 458)
 AUTHORS Strausberg, R.L., Feingold, E.A., Grouse, L.H., Derge, J.G., Klausner, R.D., Collins, F.S., Wagner, L., Shenmen, C.M., Schuler, G.D., Altschul, S.F., Zeeberg, B., Buetow, K.H., Scheffler, C.F., Bhat, N.K., Hopkins, R.F., Jordan, H., Moore, T., Max, S.I., Wang, J., Hsieh, F., Diatchenko, L., Marusina, K., Farmer, A.A., Rubin, G.M., Hong, L., Stapleton, M., Soares, M.B., Bonaldi, M.F., Casavant, T.L., Scheetz, T.E., Brownstein, M.J., Uedin, T.B., Tschitnyk, S., Canninci, P., Prange, C., Rana, S.S., Loquiano, N.A., Peters, G.J., Abramson, R.D., Mullahy, S.J., Bosak, S.A., McEwan, P.J., McEwan, K.J., Malek, J.A., Gunaratne, P.H., Richards, S., Worley, K.C., Hale, S., Garcia, A.M., Gay, L.J., Hulyk, S.W., Villalon, D.K., Muzny, D.M., Sodergren, E.J., Lu, X., Gibbs, R.A., Fahey, J., Helton, E., Kettelman, M., Madan, A., Rodriguez, S., Sanchez, A., Whiting, M., Madan, A., Young, A.C., Shevchenko, Y., Bonifard, G.G., Blakesley, R.W., Touchman, J.W., Green, E.D., Dickinson, M.C., Rodriguez, A.C., Grimwood, J., Schmutz, J., Myers, R.M., Butlerfield, Y.S., Krzywinski, M.I., Skalek, U., Smalls, D.E., Scherch, A., Schein, J.E., Jones, S.J. and Marra, M.A.
 Generation and initial analysis of more than 15,000 full-length human and mouse cDNA sequences
 Proc. Natl. Acad. Sci. U.S.A. 99 (26), 16899-16903 (2002)
 TITLE 2 (bases 1 to 458)
 JOURNAL 1247932
 PUBMED
 REFERENCE
 AUTHORS Strausberg, R.
 TITLE Direct Submission
 JOURNAL Submitted (03-FEB-2004) National Institutes of Health, Mammalian Gene Collection (MGC), Cancer Genomics Office, National Cancer Institute, 31 Center Drive, Room 11A03, Bethesda, MD 20892-2590, USA
 REMARK
 COMMENT NIH-MGC Project URL: <http://mgc.nci.nih.gov>
 Contact: MGC help desk
 Email: cgapbs-r@mail.nih.gov
 Tissue Procurement: Narayan Bhat
 cDNA Library Preparation: Bhat Laboratory
 cDNA Library Arrayed by: The I.M.A.G.E. Consortium (LIML)
 DNA Sequencing by: Sequencing Group at the Stanford Human Genome

Center, Stanford University School of Medicine, Stanford, CA 94305
 Web site: <http://www-shgc.stanford.edu>
 Contact: (Dickson, Mark) md@paxil.stanford.edu
 Dickson, M., Schmutz, J., Grimwood, J., Rodriguez, A., and Myers, R. M.
 Clone distribution: MGC clone distribution information can be found through the I.M.A.G.E. Consortium/LIML at: <http://image.llnl.gov>
 Series: IRAC Plate: 172 Row: a Column: 15
 This clone was selected for full length sequencing because it passed the following selection criteria: matched mRNA gi: 28559032
 This clone has the following problem: frame shifted.
 Location/Qualifiers
 1. 458
 /organism="Homo sapiens"
 /mol_type="mRNA"
 /db_xref="taxon:9606"
 /clone="IMAGE:6971768"
 /tissue_type="PCR rescued clones"
 /clone_id="NIH MGC_195"
 /lab_host="DH10B"
 /note="Vector: pDNR-Dual"

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 Query Match 49.2%; Score 300.4; DB 3; Length 458;
 Best Local Similarity 79.9%; Pred. No. 1.5e-73;
 Matches 366; Conservative 0; Mismatches 91; Indels 1; Gaps 1;
 Qy 6 CAAAGCTGAACATTTGAGAGCTAGAGAAATGCTTGAATTTGAGTTGCTAGCTCTTG 65
 Db 1 CAAAGCAGAAACGTTTACAGAGCCATGAGAGTCTTGCATTTGAGTTGCTAGCTCTTG 60
 Qy 66 GCGCTGCTATGTTTTCGCTTGTGCTGATGAATCCCATGAATAGCTGTGACAGAGA 125
 Db 61 GAGTGTCTGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGAT 120
 Qy 126 CTTGACACGCTCTGCACTGATGATGATGATGATGATGATGATGATGATGATGATGAT 185
 Db 121 CTTGACACGCTCTTCTGATGATGATGATGATGATGATGATGATGATGATGATGAT 180
 Qy 186 CTACTCTGAAATTAATTAATTAATTAATTAATTAATTAATTAATTAATTAATTAATTA 245
 Db 181 CTGTTCTGATTAATTAATTAATTAATTAATTAATTAATTAATTAATTAATTAATTA 240
 Qy 246 CATGAGAACCAACCTGCGCCGAGGAGGCTGTGATTAATTAATTAATTAATTAATTA 305
 Db 241 CACTGAGAGTCAACCTGCGCCGAGGAGGCTGTGATTAATTAATTAATTAATTAATTA 300
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RESULT 10
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 LOCUS Homo sapiens cDNA clone IMAGE:6971769, containing frame-shift errors.
 ACCESSION BC066280
 VERSION BC066280.1 GI:42490838
 KEYWORDS HTC.
 SOURCE Homo sapiens (human)
 ORGANISM Homo sapiens
 Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Primates; Catarrhini; Hominiidae; Homo.

REFERENCE
AUTHORS
1 (bases 1 to 458)
Strausberg, R.L., Feingold, E.A., Grouse, L.H., Derge, J.G., Klauer, R.J., Collins, F.S., Wagner, L., Shenmen, C.M., Schuler, G.D., Altshuler, S.F., Zeeberg, B., Buetow, K.H., Schaefer, C.F., Bhat, N.K., Hopkins, R.F., Jordan, H., Moore, T., Max, S.I., Wang, J., Hsieh, F., Diatchenko, L., Marisano, K., Farmer, A.A., Rubin, G.M., Hong, L., Scableton, M., Brownstein, M.J., Udwin, T.B., Toshiyuki, S., Carninci, P., Prange, C., Raha, S.S., Loquellano, N.A., Peters, G.J., Abramson, R.D., Mullen, S.J., Bosak, S.A., McEwan, P.J., McKernan, K.J., Malek, J.A., Gunaratne, P.H., Richards, S., Worley, K.C., Hale, S., Garcia, A.M., Gay, L.J., Hult, S.W., Villalón, D.K., Muzny, D.M., Sodergren, E.J., Lu, X., Gibbs, R.A., Fahey, J., Helton, E., Kettelman, M., Madan, A., Rodriguez, S., Sanchez, A., Whiting, M., Madan, A., Young, A.C., Shevchenko, Y., Boufford, G.G., Blakesley, R.W., Touchman, J.W., Green, E.D., Dickson, M.C., Rodriguez, A.C., Grimwood, J., Schmutz, J., Myers, R.M., Butterfield, Y.S., Krzywinski, M.I., Skalska, U., Smailus, D.E., Schermer, A., Schein, J.B., Jones, S.J., and Marra, M.A.
Generation and initial analysis of more than 15,000 full-length human and mouse cDNA sequences
Proc. Natl. Acad. Sci. U.S.A. 99 (26), 16899-16903 (2002)
12477932
2 (bases 1 to 458)
Strausberg, R.
Direct Submission
Submitted (03-FEB-2004) National Institutes of Health, Mammalian Gene Collection (MGC), Cancer Genomics Office, National Cancer Institute, 31 Center Drive, Room 11A03, Bethesda, MD 20892-2530, USA
NIH-MGC Project URL: <http://mgc.nci.nih.gov>
Contact: MGC help desk
Email: cgapbs-remail.nih.gov
Tissue Procurement: Narayan Bhat
cDNA Library Preparation: Bhat Laboratory
cDNA Library Arrayed by: The I.M.A.G.E. Consortium (LNL)
DNA Sequencing by: Sequencing Group at the Stanford Human Genome Center, Stanford University School of Medicine, Stanford, CA 94305
Web site: <http://www-shgc.stanford.edu>
Contact: (Dickson, Mark) mcdpaxil.stanford.edu
Dickson, M., Schmutz, J., Grimwood, J., Rodriguez, A., and Myers, R. M.
Clone distribution: MGC clone distribution information can be found through the I.M.A.G.E. Consortium/LNL at: <http://image.llnl.gov>
Series: IRAX Plate: 172 Row: a Column: 16
This clone was selected for full length sequencing because it passed the following selection criteria: matched mRNA gi: 28559032
This clone has the following problem: frame shifted.
Location/Qualifiers
1. 458
/organism="Homo sapiens"
/mol_type="mRNA"
/db_xref="taxon:9606"
/clone="IMAGE:6971768"
/tissue_type="PCR rescued clones"
/clone_id="NIH_MGC_195"
/lab_host="DH10B"
/note="Vector: pDNR-Dual"

ORIGIN
Query Match 49.2%; Score 300.4; DB 3; Length 458;
Best Local Similarity 79.9%; Pred. No. 1.5e-73;
Matches 366; Conservative 0; Mismatches 91; Indels 1; Gaps 1;
6 CAAACATGAACTTTCAGACTATGAGAAATTCCTTGAATTTGAGTTTGTACTCTTG 65
1 CAAACGAGAACTTTGAGACCATGAGAAAGCTTTCGACATTTAGTTTGTACTCTTG 60
66 GGGCTGCTATGTTCTGCTTGTCTGCTGAGAAATTCATGATAGACTGGTGACAGGA 125
61 GAGTCTCTACCTGATGATGCAATCCACAGAAATTTCCACAAAGTGCATTGGTGAAGGA 120

QY 126 CTTGACACTGCTCTCCATCATCATGAACTTGGCTGATAGCGCATGGAACTGATATTC 185
DB 121 CTTTGGACACTGCTTCTTACTCATGAACTCTGCTGATAGCAATGAGACTCTAGATTC 180
QY 186 CTACTCTGTAATTAATTAATCAACATGTCATTAAGAACTTTTCAGGGTATGACA 245
DB 181 CTCTTCTGTAATTAATTAATCAACATGTCATTAAGAACTTTTCAGGGTATGACA 240
QY 246 CATTGGAAGAACCAATGCGCCACGGGAGGCTGTGATTAATTAATTCATTAATCTGCTT 305
DB 241 CACTGGAGATGAACTGTCACCAAGGGGCTACTGTGAAAGACATATTCATTAATCTGCTT 300
QY 306 TAATTAAGAACCATATGACGCC -AAAAAAAAAGCTGTCAGAGAAAGATGAGATG 354
DB 301 TAATTAAGAAATCATATGACGCCAAAAAAAAAATGTGAGAAAGAACCGAGATG 360
QY 365 ACAAGTCTTACTACCTACCTGCAAGTATTTCTTGATTAATTAACCGAGTGACACCG 424
DB 361 AACCAATTCCTAATCATCTGCAAGAGTTCTTGATTAATTAACCGAGTGATATTA 420
QY 425 GAAAGTTGAGAACCAACCGGCTTATTTAGTGAAGT 462
DB 421 GAAAGTTGAGACCTAATCTGTTTGTGACGCAAAAGT 458

RESULT 11
CD559536 489 bp mRNA linear EST 26-NOV-2003
LOCUS
DEFINITION
AGENCOURT 14496804 NIH_MGC_195 Homo sapiens cDNA clone
IMAGE:6971768 5', mRNA sequence.
ACCESSION
CD559536
VERSION
CD559536.2 GI:38558953
KEYWORDS
EST.
SOURCE
Homo sapiens (human)
ORGANISM
Homo sapiens
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Primates; Catarrhini; Homnidae; Homo.
REFERENCE
1 (bases 1 to 489)
NIH-MGC <http://mgc.nci.nih.gov/>.
National Institutes of Health, Mammalian Gene Collection (MGC)
Unpublished (1999)
On Jun 10, 2003 this sequence version replaced gi:31585604.
Contact: Daniela S. Gerhard, Ph.D.
Office of Cancer Genomics
National Cancer Institute / NIH
Bldg. 31 Rm10A07 Bethesda, MD 20892
Email: cgapbs-remail.nih.gov
Tissue Procurement: Narayan Bhat
cDNA Library Preparation: Bhat Laboratory
cDNA Library Arrayed by: The I.M.A.G.E. Consortium (LNL)
DNA Sequencing by: Agencourt Bioscience Corporation
Clone distribution: MGC clone distribution information can be found through the I.M.A.G.E. Consortium/LNL at:
<http://image.llnl.gov>
Plate: IRBK1 row: g column: 07
High quality sequence start: 17
High quality sequence stop: 489.
Location/Qualifiers
1. 489
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/lab_host="DH5A (TI phage-resistant)"
/clone_id="NIH_MGC_195"
/note="Vector: pDNR-Dual; Site-1: loxp-Sall; Site-2: loxp-HindIII; Clones from this library have been PCR-amplified using gene-specific primers to contain the complete open reading frame (based on known gene sequence available from NCBI's RefSeq). Template for PCR is cDNA derived from either pooled cytoplasmic polyA RNA from 30 cells lines or pooled total RNA from 10 different tissues

RESULT 13
CD559689/c 473 bp mRNA linear EST 19-NOV-2003
LOCUS AGENCOURT 14496901 NIH MGC 195 Homo sapiens cDNA clone
DEFINITION IMAGE:6971768 5', mRNA sequence.
ACCESSION CD559689
VERSION CD559689.2 GI:38453487
KEYWORDS EST.
SOURCE Homo sapiens (human)
ORGANISM Homo sapiens
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Primates; Catarrhini; Homnidae; Homo.
REFERENCE 1 (bases 1 to 473)
AUTHORS NIH-MGC http://mgi.nci.nih.gov/.
TITLE National Institutes of Health, Mammalian Gene Collection (MGC)
JOURNAL Unpublished (1999)
COMMENT On Jun 10, 2003 this sequence version replaced gi:31585757.
Contact: Daniela S. Gerhard, Ph.D.
Office of Cancer Genomics
National Cancer Institute / NIH
Bldg. 31 Rm10A07 Bethesda, MD 20892
Email: cgapds-remail.nih.gov
Tissue Procurement: Narayan Bhat
CDNA Library Preparation: Bhat Laboratory
CDNA Library Arrayed by: The I.M.A.G.E. Consortium (LNL)
DNA Sequencing by: Agencourt Bioscience Corporation
Clone distribution: MGC clone distribution information can be
found through the I.M.A.G.E. Consortium/LNL at:
http://image.llnl.gov
Plate: IRBK1 row: 9 column: 08
High quality sequence start: 16
High quality sequence stop: 473.
Location/Qualifiers
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/clone_lib="NIH MGC 195"
/note="Vector: pDNR-Dual; Site 1: loxp-salI; Site 2:
loxP-HindIII; Clones from this library have been
PCR-amplified using gene-specific primers to contain the
complete open reading frame (based on known gene sequences
available from NCBI's RefSeq). Template for PCR is cDNA
derived from either pooled cytoplasmic polyA RNA from 30
cells lines or pooled total RNA from 10 different tissues
(from BD Biosciences/Clontech and Washington University).
PCR products are directionally cloned into the loxp sites
of the pDNR-Dual vector. Library constructed by Dr.
Narayan Bhat, Earl Bere III and Hongling Liao (Gene
Expression Laboratory, Research Technology Program, SAIC
Frederick, NCI-Frederick, Frederick, MD 21702). For
information on which gene each clone represents, please
visit our anonymous ftp site at
ftp://image.llnl.gov/image/reatrayed_plates/IRBK1-presv.dat
a Note: this is a NIH_MGC Library."

ORIGIN
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Best Local Similarity 80.3%; Pred. No. 2.8e-71;
Matches 355; Conservative 0; Mismatches 86; Indels 1; Gaps 1;

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472 CAACGCGAAGCGTTTCAGAGCCTGAGAGATCTTTCGATTTAGTTTCTACTCTTG 413
|||||
66 GGGGTGCTATGTTTCTGCTTCTGCTGTAAGAAAATCCCATGATAGACTGGTGCAAGA 125
|||||
412 GAGCTGCTACGTGATAGCCATCCCAAGAAATTTCCACAAAGTGCAATTGGTGAAGAAGA 353
|||||
126 CTTGACACTGCTCTCCACCTGATGAACTTGGCTGATAGGCGATGGAACTGATGATTC 185
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RESULT 14
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LOCUS AGENCOURT 14496838 NIH MGC 195 Homo sapiens cDNA clone
DEFINITION IMAGE:6971768 5', mRNA sequence.
ACCESSION CD559690
VERSION CD559690.2 GI:38453490
KEYWORDS EST.
SOURCE Homo sapiens (human)
ORGANISM Homo sapiens
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Primates; Catarrhini; Homnidae; Homo.
REFERENCE 1 (bases 1 to 467)
AUTHORS NIH-MGC http://mgi.nci.nih.gov/.
TITLE National Institutes of Health, Mammalian Gene Collection (MGC)
JOURNAL Unpublished (1999)
COMMENT On Jun 10, 2003 this sequence version replaced gi:31585758.
Contact: Daniela S. Gerhard, Ph.D.
Office of Cancer Genomics
National Cancer Institute / NIH
Bldg. 31 Rm10A07 Bethesda, MD 20892
Email: cgapds-remail.nih.gov
Tissue Procurement: Narayan Bhat
CDNA Library Preparation: Bhat Laboratory
CDNA Library Arrayed by: The I.M.A.G.E. Consortium (LNL)
DNA Sequencing by: Agencourt Bioscience Corporation
Clone distribution: MGC clone distribution information can be
found through the I.M.A.G.E. Consortium/LNL at:
http://image.llnl.gov
Plate: IRBK1 row: 9 column: 07
High quality sequence stop: 467.
Location/Qualifiers
1. 467
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/clone_lib="NIH MGC 195"
/note="Vector: pDNR-Dual; Site 1: loxp-salI; Site 2:
loxP-HindIII; Clones from this library have been
PCR-amplified using gene-specific primers to contain the
complete open reading frame (based on known gene sequences
available from NCBI's RefSeq). Template for PCR is cDNA
derived from either pooled cytoplasmic polyA RNA from 30
cells lines or pooled total RNA from 10 different tissues
(from BD Biosciences/Clontech and Washington University).
PCR products are directionally cloned into the loxp sites

352 CCTGGCAGCTGCTTTTACTCATCGAATCTGTGTATAGCAATGAGACTGATGATTC 293
|||||
186 CTACTCCTGAAATATATAAATCACCACTGTGATTAAGAGTTTTCAGGGTATAGACA 245
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292 CTGTCTCTGACATATAAATATACCAACTGTGACTGAAGAAATCTTCAGGGAATAGCA 233
|||||
246 CATTGAAGAACCAACTGCCACGGGAGGCTGTGATTAATTAATTCCTGCTT 305
|||||
232 CACTGAGAGATCAACTGTGCAAGGGGGTCTGTGAAAGACATTTCAAAACCTTGCT 173
|||||
306 TAATTAAGAACCATAGAGCGCC-AAAAAAAAAGGTGACAGAGAAAGATGACAGTG 364
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172 TAATTAAGAAATTCATTGACGGCCAAAAAAGGTGAGAGAAAGACGAGAGTA 113
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365 ACAAGTCTCTAAGTACGCAAGTATTTCTGTGTATTAACACCGAGTGACACCG 424
|||||
112 AACCAATCTCTAATCACTACGCAAGAGTTTCTGTGTATTAAGAACCGAGTATATA 53
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425 GAAAGTTGAGAACAAACCGGCT 446
|||||
52 GAAAGTTGAGACTAAACTGGTT 31
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GenCore version 5.1.6
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OM nucleic - nucleic search, using sw model

Run on: August 8, 2005, 13:33:24 ; Search time 1936.27 Seconds
(without alignments)
10060.080 Million cell updates/sec

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Scoring table: OLIGO_NUC
Gapop 60.0 , Gapext 60.0

Searched: 4708233 seqs, 24227607955 residues

Word size : 0

Total number of hits satisfying chosen parameters: 9416466

Minimum DB seq length: 0
Maximum DB seq length: 200000000

Post-processing: Listing first 45 summaries

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13: gb_un:.*
14: gb_vi:.*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

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1	402	100.0	402	6	BD211560 Canine an
2	402	100.0	402	6	BD211561 Canine an
3	402	100.0	402	6	AR241538 Sequence
4	402	100.0	402	6	AR241539 Sequence
5	402	100.0	402	6	AR254494 Sequence
6	402	100.0	402	6	AR254495 Sequence
7	402	100.0	610	4	AR231819 Canis fam
8	402	100.0	610	6	BD211558 Canine an
9	402	100.0	610	6	BD211559 Canine an
10	402	100.0	610	6	AR241536 Sequence
11	402	100.0	610	6	AR241537 Sequence
12	402	100.0	610	6	AR254492 Sequence
13	402	100.0	610	6	AR254493 Sequence
14	393	97.8	405	6	AR300436 Sequence
15	393	97.8	405	6	AX083939 Sequence
16	345	85.8	345	6	BD211562 Canine an
17	345	85.8	345	6	BD211563 Canine an
18	345	85.8	345	6	AR241540 Sequence
19	345	85.8	345	6	AR241541 Sequence

20	345	85.8	345	6	AR254496 Sequence
c 21	345	85.8	345	6	AR254497 Sequence
22	271	67.4	356	4	AF091133 Canis fam
23	250	62.2	343	6	AX083948 Sequence
24	144	35.8	1658	4	AR331920 Canis fam
25	43	10.7	520	4	CAU35038
26	43	10.7	1140	4	OAL1V1
27	42	10.4	405	4	SSCO10088
28	42	10.4	529	4	SSC133452
29	41	10.2	405	4	AF068770
30	41	10.2	405	4	BTINTLEUS
31	41	10.2	838	4	AF025436
32	41	10.2	197131	4	AC149665
33	40	10.0	405	4	ECU91947
34	30	7.5	354	4	AF051372
c 35	28	7.2	213042	2	AC151015
36	28	7.0	405	9	AF294756
37	28	7.0	564	10	CPU34588
c 38	25	6.2	150124	2	AC148886
c 39	25	6.2	167036	2	AC148855
40	22	5.5	27	6	I39768
c 41	22	5.5	47	6	I71456
42	22	5.5	405	9	CEY185A
43	22	5.5	405	9	MMU19848
44	22	5.5	421	12	SYN115A
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ALIGNMENTS

RESULT 1
LOCUS BD211560
DEFINITION Canine and feline immunoregulatory proteins, nucleic acid molecules
ACCESSION BD211560.1 GI:33021330
VERSION JP 2002516104-A/66.
KEYWORDS Canis familiaris (dog)
SOURCE Canis familiaris
ORGANISM Canis familiaris
REFERENCE Sain, G., Yang, S., Dreitz, M. J. and Wonderling, R. S.
AUTHORS Canine and feline immunoregulatory proteins, nucleic acid molecules
TITLE Canine and feline immunoregulatory proteins, nucleic acid molecules
JOURNAL Patent: JP 2002516104-A 66 04-JUN-2002;
HESKA CORP

COMMENT

OS Canis familiaris (dog)
PN JP 2002516104-A/66
PD 04-JUN-2002
PF 28-MAY-1999 JP 2000551002
PR 29-MAY-1998 US 60/087306
PI GEKKEE SIM, SHUMIN YANG, MATTHEW J DREITZ, RAMANI S WONDERLING PC
C12N15/09, A61K31/7088, A61K38/21, A61K39/00, A61K39/395,
PC A61K39/395
PC A61K45/00, A61K48/00, A61P37/02, A61P37/04, C07K14/475, C07K14/535,
PC C07K14/54, C07K14/56, C07K14/705, C07K16/24, C07K16/28, C12N1/21, C12N5/10, PC
G01N33/15,
PC G01N33/50, C12N15/00, A61K37/02, A61K37/66, C12N5/00 CC Canine
and feline immunoregulatory proteins, nucleic acid CC
molecules and
CC method of using the same
FT Key Location/Qualifiers
FT source 1.402
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FT source 1.402

FEATURES

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Location/Qualifiers
1..402
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ORIGIN

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Best Local Similarity 100.0%; Pred. No. 2e-218;
Matches 402; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

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QY 61 GCTGTAGAAAATCCAGTAATAGACTGTGGCAGAGACTTGACACAGCTCTCCACAT 120
DB 61 GCTGTAGAAAATCCAGTAATAGACTGTGGCAGAGACTTGACACAGCTCTCCACAT 120

QY 121 CGAATCTGCTGATAGGCGATGGAACTGTATGTTCTTCTCTGAAAAATTAATAC 180
DB 121 CGAATCTGCTGATAGGCGATGGAACTGTATGTTCTTCTCTGAAAAATTAATAC 180

QY 181 CAACTGTGCAATTAAGAAAGTTTTCAGGCTATAGACATTTGAAGAACCAACTGCCAC 240
DB 181 CAACTGTGCAATTAAGAAAGTTTTCAGGCTATAGACATTTGAAGAACCAACTGCCAC 240

QY 241 GGGAGGCTGTGATTAACCTATTCCTTCTTAAATAAAGAACATAGAGCGC 300
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QY 301 CAAAAAAAAGTGTGACGAGAAAGATGAGAGTGAACAAAGTTCTTGAAGTACCTGCAA 360
DB 301 CAAAAAAAAGTGTGACGAGAAAGATGAGAGTGAACAAAGTTCTTGAAGTACCTGCAA 360

QY 361 GTATTCTTGTGTATTAACACCGAGTGCACCGGAAGT 402
DB 361 GTATTCTTGTGTATTAACACCGAGTGCACCGGAAGT 402

RESULT 2
BD211561/c 402 bp DNA linear PAT 17-JUN-2003
LOCUS BD211561
DEFINITION Canine and feline immunoregulatory proteins, nucleic acid molecules and method of using the same.
ACCESSION BD211561
VERSION BD211561.1 GI:33021331
KEYWORDS JP 2002516104-A/67.
SOURCE Canis familiaris (dog)
ORGANISM Canis familiaris
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Carnivora; Fissipedia; Canidae; Canis.
1 (bases 1 to 402)
REFERENCE Sim,G., Yang,S., Dreitz,M.J. and Wonderling,R.S.
AUTHORS Canine and feline immunoregulatory proteins, nucleic acid molecules and method of using the same
TITLE Patent: JP 2002516104-A 67 04-JUN-2002;
JOURNAL HESKA CORP
COMMENT OS Canis familiaris (dog)
PN JP 2002516104-A/67
PD 04-JUN-2002
PF 28-MAY-1999 JP 2000551002
PI 29-MAY-1998 US 60/087306
PI GEXKEB SIM,SHUMIN YANG,MATTHEW J DREITZ,RAMANI S WONDERLING PC
C12N15/09 A61K31/7088,A61K38/00,A61K38/21,A61K39/00,A61K39/395,
PC A61K39/395,
PC A61K45/00,A61K48/00,A61P37/02,A61P37/04,C07K14/475,C07K14/535,
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PC C07K14/56,C07K14/705,C07K16/24,C07K16/28,C12N1/21,C12N5/10, PC
G01N33/15,
PC G01N33/50,C12N15/00,A61K37/02,A61K37/66,C12N5/00 CC Canine
and feline immunoregulatory proteins, nucleic acid CC
molecules and
CC method of using the same
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Matches 402; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

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DB 342 GCTGTAGAAAATCCAGTAATAGACTGTGGCAGAGACTTGACACAGCTCTCCACAT 263

QY 121 CGAATCTGCTGATAGGCGATGGAACTGTATGTTCTTCTCTGAAAAATTAATAC 180
DB 282 CGAATCTGCTGATAGGCGATGGAACTGTATGTTCTTCTCTGAAAAATTAATAC 223

QY 181 CAACTGTGCAATTAAGAAAGTTTTCAGGCTATAGACATTTGAAGAACCAACTGCCAC 240
DB 222 CAACTGTGCAATTAAGAAAGTTTTCAGGCTATAGACATTTGAAGAACCAACTGCCAC 163

QY 241 GGGAGGCTGTGATTAACCTATTCCTTCTTAAATAAAGAACATAGAGCGC 300
DB 162 GGGAGGCTGTGATTAACCTATTCCTTCTTAAATAAAGAACATAGAGCGC 103

QY 301 CAAAAAAAAGTGTGACGAGAAAGATGAGAGTGAACAAAGTTCTTGAAGTACCTGCAA 360
DB 102 CAAAAAAAAGTGTGACGAGAAAGATGAGAGTGAACAAAGTTCTTGAAGTACCTGCAA 43

QY 361 GTATTCTTGTGTATTAACACCGAGTGCACCGGAAGT 402
DB 42 GTATTCTTGTGTATTAACACCGAGTGCACCGGAAGT 1

RESULT 3
AR241538 402 bp DNA linear PAT 20-DEC-2002
LOCUS AR241538
DEFINITION Sequence 83 from patent US 6471957.
ACCESSION AR241538
VERSION AR241538.1 GI:27287247
KEYWORDS
SOURCE Unknown.
ORGANISM Unknown.
REFERENCE Unclassified.
1 (bases 1 to 402)
AUTHORS Sim,G.-K., Yang,S., Dreitz,M.J. and Wonderling,R.S.
TITLE Canine IL-4 immunoregulatory proteins and uses thereof
JOURNAL Patent: US 6471957-A 83 29-OCT-2002;
FEATURES
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/organism='unknown'
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ORIGIN

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Best Local Similarity 100.0%; Pred. No. 2e-218;
Matches 402; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

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DB 61 GCTGTAGAAAATCCAGTAATAGACTGTGGCAGAGACTTGACACAGCTCTCCACAT 120

QY 121 CGAATCTGCTGATAGGCGATGGAACTGTATGTTCTTCTCTGAAAAATTAATAC 180
DB 121 CGAATCTGCTGATAGGCGATGGAACTGTATGTTCTTCTCTGAAAAATTAATAC 180

Db 121 CGAAGCTGGCTGATAGGCGATGGAACTGTGATGATTCCTACTCTGTAATAATAATAC 180
Qy 181 CAACCTGCTGATTAAGAAAGTTTTCAGGGTATAGACATTTGAGAAACCAATGCCAC 240
Db 181 CAACCTGCTGATTAAGAAAGTTTTCAGGGTATAGACATTTGAGAAACCAATGCCAC 240
Qy 241 GGGGAGGCTGTGATTAACCTATTCCTGATTCCTGATTAATAAGAAACATAGAGGC 300
Db 241 GGGGAGGCTGTGATTAACCTATTCCTGATTCCTGATTAATAAGAAACATAGAGGC 300
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Db 301 CAAAAAAGAGTGTGACGAGAAAGATGAGAGTGAACAAAGTTCTTGAATCTGCA 360
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Db 361 GTATTTCTGTGATTAATAACCGAGTGAACCGGAAAGT 402

RESULT 4
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LOCUS AR241539 402 bp DNA linear PAT 20-DEC-2002
DEFINITION Sequence 84 from patent US 6471957.
ACCESSION AR241539
VERSION AR241539.1 GI:27287248
KEYWORDS
SOURCE Unknown.
ORGANISM Unknown.
REFERENCE 1 (bases 1 to 402)
AUTHORS Sim,G.-K., Yang,S., Dreitz,M.J. and Wonderling,R.S.
TITLE Canine IL-4 immunoregulatory proteins and uses thereof
JOURNAL Patent: US 6471957-A 84 29-OCT-2002;
FEATURES
Location/Qualifiers
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/organism="unknown"
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ORIGIN

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Best Local Similarity 100.0%; Pred. No. 2e-218;
Matches 402; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 ATGAGAAATGCTTGAATTTGAGTTTGTACTCTTGGGGCTGCTATGTTTGGCCTT 60
Db 402 ATGAGAAATGCTTGAATTTGAGTTTGTACTCTTGGGGCTGCTATGTTTGGCCTT 343
Qy 61 GCTGTAGAAAATCCCATGATAGACTGTGCGAGACCTTGAACATGCTCTCCATCAT 120
Db 342 GCTGTAGAAAATCCCATGATAGACTGTGCGAGACCTTGAACATGCTCTCCATCAT 283
Qy 121 CGAAGCTGGCTGATAGGCGATGGAACTGATGATTCCTACTCTGAAAATTAATAC 180
Db 282 CGAAGCTGGCTGATAGGCGATGGAACTGATGATTCCTACTCTGAAAATTAATAC 223
Qy 181 CAACCTGCTGATTAAGAAAGTTTTCAGGGTATAGACATTTGAGAAACCAATGCCAC 240
Db 222 CAACCTGCTGATTAAGAAAGTTTTCAGGGTATAGACATTTGAGAAACCAATGCCAC 163
Qy 241 GGGGAGGCTGTGATTAACCTATTCCTGATTCCTGATTAATAAGAAACATAGAGGC 300
Db 162 GGGGAGGCTGTGATTAACCTATTCCTGATTCCTGATTAATAAGAAACATAGAGGC 103
Qy 301 CAAAAAAGAGTGTGACGAGAAAGATGAGAGTGAACAAAGTTCTTGAATCTGCA 360
Db 102 CAAAAAAGAGTGTGACGAGAAAGATGAGAGTGAACAAAGTTCTTGAATCTGCA 43
Qy 361 GTATTTCTGTGATTAATAACCGAGTGAACCGGAAAGT 402
Db 42 GTATTTCTGTGATTAATAACCGAGTGAACCGGAAAGT 1

RESULT 5

AR254494
LOCUS AR254494 402 bp DNA linear PAT 20-DEC-2002
DEFINITION Sequence 83 from patent US 6482403.
ACCESSION AR254494
VERSION AR254494.1 GI:27303382
KEYWORDS
SOURCE Unknown.
ORGANISM Unknown.
REFERENCE 1 (bases 1 to 402)
AUTHORS Sim,G.-K., Yang,S., Dreitz,M.J. and Wonderling,R.S.
TITLE Canine IL-13 immunoregulatory proteins and uses thereof
JOURNAL Patent: US 6482403-A 83 19-NOV-2002;
FEATURES
Location/Qualifiers
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ORIGIN

Query Match 100.0%; Score 402; DB 6; Length 402;
Best Local Similarity 100.0%; Pred. No. 2e-218;
Matches 402; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 ATGAGAAATGCTTGAATTTGAGTTTGTACTCTTGGGGCTGCTATGTTTGGCCTT 60
Db 1 ATGAGAAATGCTTGAATTTGAGTTTGTACTCTTGGGGCTGCTATGTTTGGCCTT 60
Qy 61 GCTGTAGAAAATCCCATGATAGACTGTGCGAGACCTTGAACATGCTCTCCATCAT 120
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Qy 121 CGAAGCTGGCTGATAGGCGATGGAACTGATGATTCCTACTCTGAAAATTAATAC 180
Db 121 CGAAGCTGGCTGATAGGCGATGGAACTGATGATTCCTACTCTGAAAATTAATAC 180
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Qy 241 GGGGAGGCTGTGATTAACCTATTCCTGATTCCTGATTAATAAGAAACATAGAGGC 300
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Db 361 GTATTTCTGTGATTAATAACCGAGTGAACCGGAAAGT 402

RESULT 6

AR254495
LOCUS AR254495 402 bp DNA linear PAT 20-DEC-2002
DEFINITION Sequence 84 from patent US 6482403.
ACCESSION AR254495
VERSION AR254495.1 GI:27303383
KEYWORDS
SOURCE Unknown.
ORGANISM Unknown.
REFERENCE 1 (bases 1 to 402)
AUTHORS Sim,G.-K., Yang,S., Dreitz,M.J. and Wonderling,R.S.
TITLE Canine IL-13 immunoregulatory proteins and uses thereof
JOURNAL Patent: US 6482403-A 84 19-NOV-2002;
FEATURES
Location/Qualifiers
1..402
/organism="unknown"
/mol_type="genomic DNA"

ORIGIN

Query Match 100.0%; Score 402; DB 6; Length 402;

Best Local Similarity 100.0%; Pred. No. 2e-218;
Matches 402; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 ATGAGAAATGCTTGAATTTGAGTTTCTAGCTCTTGGGCTGCTATGTTTCTGCTTT 60
Db 402 ATGAGAAATGCTTGAATTTGAGTTTCTAGCTCTTGGGCTGCTATGTTTCTGCTTT 343
QY 61 GCTGTAGAAAATCCCATGAAATAGACTGTGGCAGAGACCTTGACACTGCTCTCCACTCAT 120
Db 342 GCTGTAGAAAATCCCATGAAATAGACTGTGGCAGAGACCTTGACACTGCTCTCCACTCAT 283
QY 121 CGAATCTGGCTGATAGGCGATGGGAACCTGATGTTCTTACTCTCTGAAAAATTAATATCAC 180
Db 282 CGAATCTGGCTGATAGGCGATGGGAACCTGATGTTCTTACTCTCTGAAAAATTAATATCAC 223
QY 181 CAACCTGCACTTAAGAAAGTTTTCAGGGTATAGACATTTGAAGAACCAACTGCCAC 240
Db 222 CAACCTGCACTTAAGAAAGTTTTCAGGGTATAGACATTTGAAGAACCAACTGCCAC 163
QY 241 GGGGAGGCTGTGATTAACCTATTCCTTAAATTAAGAACCATAGAGCGC 300
Db 162 GGGGAGGCTGTGATTAACCTATTCCTTAAATTAAGAACCATAGAGCGC 103
QY 301 CAAAAAAGGTGTGACAGAGAAAGATGAGAGTGCACAAAGTCTTACACTCTGCAA 360
Db 102 CAAAAAAGGTGTGACAGAGAAAGATGAGAGTGCACAAAGTCTTACACTCTGCAA 43
QY 361 GTATTTCTTGTGTATTAACACCGAGTGACACCGGAAGT 402
Db 42 GTATTTCTTGTGTATTAACACCGAGTGACACCGGAAGT 1

RESULT 7
AF31919 610 bp mRNA linear MAM 04-OCT-2001

LOCUS AF31919
DEFINITION Canis familiaris Interleukin-5 mRNA, complete cds.
ACCESSION AF31919
VERSION AF31919.1 GI:15919180
KEYWORDS
SOURCE
ORGANISM Canis familiaris (dog)
Bukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Carnivora; Fissipedia; Canidae; Canis.

REFERENCE
AUTHORS Yang, S., Sellins, K.S., Weber, B. and McCall, C.
TITLE Canine Interleukin-5: molecular characterization of the gene and
expression of biologically active recombinant protein

JOURNAL J. Interferon Cytokine Res. 21 (6), 361-367 (2001)
MEDLINE 21334408
PUBMED 11440633

REFERENCE
PUBMED 2 (bases 1 to 610)

AUTHORS Yang, S.
TITLE Direct Submission
JOURNAL Submitted (22-DEC-2000) Immunology, Heeska Corporation, 1613
Prospect Parkway, Ft Collins, CO 80525, USA

FEATURES
source
1. .610
Location/Qualifiers
/organism="Canis familiaris"
/mol_type="mRNA"
/db_xref="taxon:9615"

5'UTR
CDS
1. .28
29. .433
/note="IL-5"
/codon_start=1
/product="interleukin-5"
/protein_id="AAL10715.1"
/db_xref="GI:15919181"

3'UTR
ORIGIN
KCGAGGRRWVTKPFLDYLVPLGVINTWTPSS"
433. .610

Query Match 100.0%; Score 402; DB 4; Length 610;
Best Local Similarity 100.0%; Pred. No. 2.1e-218;
Matches 402; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 ATGAGAAATGCTTGAATTTGAGTTTCTAGCTCTTGGGCTGCTATGTTTCTGCTTT 60
Db 29 ATGAGAAATGCTTGAATTTGAGTTTCTAGCTCTTGGGCTGCTATGTTTCTGCTTT 88
QY 61 GCTGTAGAAAATCCCATGAAATAGACTGTGGCAGAGACCTTGACACTGCTCTCCACTCAT 120
Db 89 GCTGTAGAAAATCCCATGAAATAGACTGTGGCAGAGACCTTGACACTGCTCTCCACTCAT 148
QY 121 CGAATCTGGCTGATAGGCGATGGGAACCTGATGTTCTTACTCTCTGAAAAATTAATATCAC 180
Db 149 CGAATCTGGCTGATAGGCGATGGGAACCTGATGTTCTTACTCTCTGAAAAATTAATATCAC 208
QY 181 CAACCTGCACTTAAGAAAGTTTTCAGGGTATAGACATTTGAAGAACCAACTGCCAC 240
Db 209 CAACCTGCACTTAAGAAAGTTTTCAGGGTATAGACATTTGAAGAACCAACTGCCAC 288
QY 241 GGGGAGGCTGTGATTAACCTATTCCTTAAATTAAGAACCATAGAGCGC 300
Db 269 GGGGAGGCTGTGATTAACCTATTCCTTAAATTAAGAACCATAGAGCGC 328
QY 301 CAAAAAAGGTGTGACAGAGAAAGATGAGAGTGCACAAAGTCTTACACTCTGCAA 360
Db 329 CAAAAAAGGTGTGACAGAGAAAGATGAGAGTGCACAAAGTCTTACACTCTGCAA 388
QY 361 GTATTTCTTGTGTATTAACACCGAGTGACACCGGAAGT 402
Db 389 GTATTTCTTGTGTATTAACACCGAGTGACACCGGAAGT 430

RESULT 8
BD211558 610 bp DNA linear PAT 17-JUN-2003

LOCUS BD211558
DEFINITION Canine and feline immunoregulatory proteins, nucleic acid molecules
and method of using the same.
ACCESSION BD211558
VERSION BD211558.1 GI:33021328
KEYWORDS JP 2002516104-A/64

SOURCE
ORGANISM Canis familiaris (dog)
Bukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Carnivora; Fissipedia; Canidae; Canis.

REFERENCE
AUTHORS Sim, G., Yang, S., Drelitz, M.J. and Wonderling, R.S.
TITLE Canine and feline immunoregulatory proteins, nucleic acid molecules
and method of using the same

JOURNAL Patent: JP 2002516104-A 64 04-JUN-2002;
HESKA CORP

COMMENT OS Canis familiaris (dog)
PN JP 2002516104-A/64

PD 04-JUN-2002 JP 2000551002
PR 28-MAY-1999 US 60/087306
PI 29-MAY-1998 US 60/087306

PC GEEKER SIM, SHUMIN YANG, MATTHEW J DREITZ, RAMANI S WONDERLING PC
C12N15/09, A61K31/7088, A61K38/00, A61K38/21, A61K39/00, A61K39/395,
PC A61K39/395,
PC A61K45/00, A61K48/00, A61P37/02, A61P37/04, C07K14/475, C07K14/535,
PC C07K14/54,
PC C07K14/56, C07K14/705, C07K16/24, C07K16/28, C12N1/21, C12N5/10, PC
G01N33/15,
PC G01N33/50, C12N15/00, A61K37/02, A61K37/66, C12N5/00 CC Canine
and feline immunoregulatory proteins, nucleic acid CC

CC method of using the same
FH Key Location/Qualifiers
FT CDS (29) .. (430) .
Location/Qualifiers

FEATURES
source
1. .610
Location/Qualifiers
/organism="Canis familiaris"
/mol_type="genomic DNA"

ORIGIN /db_xref="taxon:9615"

Query Match 100.0%; Score 402; DB 6; Length 610;
Best Local Similarity 100.0%; Pred. No. 2,1e-218;
Matches 402; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 ATGAGAAATGCTTGAATTTGAGTTGCTAGCTCTTGAGGGGCTGCTAATGTTTGCCTTT 60
DB 29 ATGAGAAATGCTTGAATTTGAGTTGCTAGCTCTTGAGGGGCTGCTAATGTTTGCCTTT 88
QY 61 GCTGTAGAAAATCCCATGAAATAGACTGTGTGCGAGAGACCTTGACACTGCTCTCCACTCAT 120
DB 89 GCTGTAGAAAATCCCATGAAATAGACTGTGTGCGAGAGACCTTGACACTGCTCTCCACTCAT 148
QY 121 CGAATCTGGCTGATAGGCGAGATGGGAACTGTATGATTTCTACTCTCTGAAAAATAAATAC 180
DB 149 CGAATCTGGCTGATAGGCGAGATGGGAACTGTATGATTTCTACTCTCTGAAAAATAAATAC 208
QY 181 CAACTGTGATTAAGAAAGTTTTCAGGGTATAGACATTAAGAAACCAACTGCCAC 240
DB 209 CAACTGTGATTAAGAAAGTTTTCAGGGTATAGACATTAAGAAACCAACTGCCAC 268
QY 241 GGGGAGGCTGTGATTAAGAAAGTTTTCAGGGTATAGACATTAAGAAACCAACTGCCAC 300
DB 269 GGGGAGGCTGTGATTAAGAAAGTTTTCAGGGTATAGACATTAAGAAACCAACTGCCAC 328
QY 301 CAAAAAAGAGTGTGACAGAGAAAGATGAGAGTGAACAAAGTTCTTAACTACTGCA 360
DB 329 CAAAAAAGAGTGTGACAGAGAAAGATGAGAGTGAACAAAGTTCTTAACTACTGCA 388
QY 361 GTATTTCTTGTGTATTAATTAACCCGAGTGAACCCGAAAGT 402
DB 389 GTATTTCTTGTGTATTAATTAACCCGAGTGAACCCGAAAGT 430

RESULT 9
BD211559/c 610 bp DNA linear PAT 17-JUN-2003
LOCUS Canine and feline immunoregulatory proteins, nucleic acid molecules
DEFINITION BD211559
ACCESSION BD211559.1 GI:33021329
VERSION JP 2002516104-A/65.
KEYWORDS Canis familiaris (dog)
SOURCE Canis familiaris
ORGANISM Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Carnivora; Plissipedia; Canidae; Canis.
1 (bases 1 to 610)
Sim.G., Yang.S., Dreitz,M.J. and Wonderling,R.S.
Canine and feline immunoregulatory proteins, nucleic acid molecules
and method of using the same
Patent: JP 2002516104-A 65 04-JUN-2002;
HESKA CORP
OS Canis familiaris (dog)
PN JP 2002516104-A/65
PD 04-JUN-2002
PF 28-MAY-1998 JP 2000551002
PR 29-MAY-1998 US 60/087306
PI GEKKEE SIM,SHUWIN YANG,MATTHEW J DREITZ,RAMANI S WONDERLING PC
C12N15/09,A61K31/7088,A61K38/00,A61K38/21,A61K39/00,A61K39/395,
PC A61K39/395,
PC A61K45/00,A61K48/00,A61P37/02,A61P37/04,C07K14/475,C07K14/535,
PC C07K14/54,C07K14/705,C07K16/24,C07K16/28,C12N1/21,C12N5/10, PC
G01N33/15,
PC G01N33/50,C12N15/00,A61K37/02,A61K37/66,C12N5/00 CC Canine
and feline immunoregulatory proteins, nucleic acid CC
molecules and
CC method of using the same
FH Key Location/Qualifiers
FT source 1..610
/organism='Canis familiaris (dog)'.

FEATURES
Source Location/Qualifiers
1..610
/organism='Canis familiaris'
/mol_type='genomic DNA'
/db_xref='taxon:9615'

ORIGIN
Query Match 100.0%; Score 402; DB 6; Length 610;
Best Local Similarity 100.0%; Pred. No. 2,1e-218;
Matches 402; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 ATGAGAAATGCTTGAATTTGAGTTGCTAGCTCTTGAGGGGCTGCTAATGTTTGCCTTT 60
DB 582 ATGAGAAATGCTTGAATTTGAGTTGCTAGCTCTTGAGGGGCTGCTAATGTTTGCCTTT 523
QY 61 GCTGTAGAAAATCCCATGAAATAGACTGTGTGCGAGAGACCTTGACACTGCTCTCCACTCAT 120
DB 522 GCTGTAGAAAATCCCATGAAATAGACTGTGTGCGAGAGACCTTGACACTGCTCTCCACTCAT 463
QY 121 CGAATCTGGCTGATAGGCGAGATGGGAACTGTATGATTTCTACTCTCTGAAAAATAAATAC 180
DB 462 CGAATCTGGCTGATAGGCGAGATGGGAACTGTATGATTTCTACTCTCTGAAAAATAAATAC 403
QY 462 CGAATCTGGCTGATAGGCGAGATGGGAACTGTATGATTTCTACTCTCTGAAAAATAAATAC 403
DB 462 CGAATCTGGCTGATAGGCGAGATGGGAACTGTATGATTTCTACTCTCTGAAAAATAAATAC 403
QY 181 CAACTGTGATTAAGAAAGTTTTCAGGGTATAGACATTAAGAAACCAACTGCCAC 240
DB 402 CAACTGTGATTAAGAAAGTTTTCAGGGTATAGACATTAAGAAACCAACTGCCAC 343
QY 241 GGGGAGGCTGTGATTAAGAAAGTTTTCAGGGTATAGACATTAAGAAACCAACTGCCAC 300
DB 342 GGGGAGGCTGTGATTAAGAAAGTTTTCAGGGTATAGACATTAAGAAACCAACTGCCAC 283
QY 301 CAAAAAAGAGTGTGACAGAGAAAGATGAGAGTGAACAAAGTTCTTAACTACTGCA 360
DB 282 CAAAAAAGAGTGTGACAGAGAAAGATGAGAGTGAACAAAGTTCTTAACTACTGCA 223
QY 361 GTATTTCTTGTGTATTAATTAACCCGAGTGAACCCGAAAGT 402
DB 222 GTATTTCTTGTGTATTAATTAACCCGAGTGAACCCGAAAGT 181

RESULT 10
AR241536 610 bp DNA linear PAT 20-DEC-2002
LOCUS Sequence 80 from patent US 6471957.
DEFINITION AR241536
ACCESSION AR241536
VERSION AR241536.1 GI:27287245
KEYWORDS
SOURCE
ORGANISM
REFERENCE
1 (bases 1 to 610)
Sim.G., Yang.S., Dreitz,M.J. and Wonderling,R.S.
Canine IL-4 immunoregulatory proteins and uses thereof
Patent: US 6471957-A 80 29-OCT-2002;
JOURNAL Location/Qualifiers
1..610
/organism='unknown'
/mol_type='genomic DNA'

ORIGIN
Query Match 100.0%; Score 402; DB 6; Length 610;
Best Local Similarity 100.0%; Pred. No. 2,1e-218;
Matches 402; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 ATGAGAAATGCTTGAATTTGAGTTGCTAGCTCTTGAGGGGCTGCTAATGTTTGCCTTT 60
DB 29 ATGAGAAATGCTTGAATTTGAGTTGCTAGCTCTTGAGGGGCTGCTAATGTTTGCCTTT 88
QY 61 GCTGTAGAAAATCCCATGAAATAGACTGTGTGCGAGAGACCTTGACACTGCTCTCCACTCAT 120
DB 89 GCTGTAGAAAATCCCATGAAATAGACTGTGTGCGAGAGACCTTGACACTGCTCTCCACTCAT 148
QY 121 CGAATCTGGCTGATAGGCGAGATGGGAACTGTATGATTTCTACTCTCTGAAAAATAAATAC 180

Db 149 CGAAGCTGGCTGATAGGCGATGGAGACCTGATGATTCCTACTCTGAAAAATAAAAATCAC 208
Qy 181 CAACTGTGACATTAAAGAAAGTTTTCAGGGTATAGACACATTGAAGAACCAAACTGCCAC 240
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Db 269 GGGGAGGCTGTGATTAACCTATTCGAAAACTGTCTTTAATAAAGAACATAGAGCGC 328
Qy 301 CAAAAAAGAGTGTGACGAGGAGAAAGATGAGAGTGAACAAAGTCCATGACTACTGCA 360
Db 329 CAAAAAAGAGTGTGACGAGGAGAAAGATGAGAGTGAACAAAGTCCATGACTACTGCA 388
Qy 361 GTATTCTGTGTATTAACACCGAGTGACACCGGAAAGT 402
Db 389 GTATTCTGTGTATTAACACCGAGTGACACCGGAAAGT 430

RESULT 11
AR241537/c
LOCUS AR241537 610 bp DNA linear PAT 20-DEC-2002
DEFINITION AR241537
ACCESSION AR241537
VERSION AR241537.1 GI:27287246
KEYWORDS
SOURCE Unknown.
ORGANISM Unknown.
REFERENCE 1 (bases 1 to 610)
AUTHORS Sim,G.-K., Yang,S., Dreitz,M.J. and Wonderling,R.S.
TITLE Canine IL-4 immunoregulatory proteins and uses thereof
JOURNAL Patent: US 6471957-A 82 29-OCT-2002;
FEATURES
LOCATION/Qualifiers
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/organism="unknown"
/mol_type="genomic DNA"

ORIGIN
Query Match 100.0%; Score 402; DB 6; Length 610;
Best Local Similarity 100.0%; Pred. No. 2,1e-218;
Matches 402; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 ATGAGAAATGCTTGAATTTGATTTGCTAGCTTGGGCTGCTATGTTTCTGCTTT 60
Db 582 ATGAGAAATGCTTGAATTTGATTTGCTAGCTTGGGCTGCTATGTTTCTGCTTT 523
Qy 61 GCTGTAGAAAATCCCATGATATGACTGTGTGACAGACCTTGACACTGCTTCCACTCAT 120
Db 522 GCTGTAGAAAATCCCATGATATGACTGTGTGACAGACCTTGACACTGCTTCCACTCAT 463
Qy 121 CGAAGCTGGCTGATAGGCGATGGGAACTGATGATTCCTACTCTGAAAAATAAAAATCAC 180
Db 462 CGAAGCTGGCTGATAGGCGATGGGAACTGATGATTCCTACTCTGAAAAATAAAAATCAC 403
Qy 181 CAACTGTGACATTAAAGAAAGTTTTCAGGGTATAGACACATTGAAGAACCAAACTGCCAC 240
Db 402 CAACTGTGACATTAAAGAAAGTTTTCAGGGTATAGACACATTGAAGAACCAAACTGCCAC 343
Qy 241 GGGGAGGCTGTGATTAACCTATTCGAAAACTGTCTTTAATAAAGAACATAGAGCGC 300
Db 342 GGGGAGGCTGTGATTAACCTATTCGAAAACTGTCTTTAATAAAGAACATAGAGCGC 283
Qy 301 CAAAAAAGAGTGTGACGAGGAGAAAGATGAGAGTGAACAAAGTCCATGACTACTGCA 360
Db 282 CAAAAAAGAGTGTGACGAGGAGAAAGATGAGAGTGAACAAAGTCCATGACTACTGCA 223
Qy 361 GTATTCTGTGTATTAACACCGAGTGACACCGGAAAGT 402
Db 222 GTATTCTGTGTATTAACACCGAGTGACACCGGAAAGT 181

RESULT 12
AR254492
LOCUS AR254492 610 bp DNA linear PAT 20-DEC-2002
DEFINITION AR254492
ACCESSION AR254492
VERSION AR254492.1 GI:27303380
KEYWORDS
SOURCE Unknown.
ORGANISM Unknown.
REFERENCE 1 (bases 1 to 610)
AUTHORS Sim,G.-K., Yang,S., Dreitz,M.J. and Wonderling,R.S.
TITLE Canine IL-13 immunoregulatory proteins and uses thereof
JOURNAL Patent: US 6482403-A 80 19-NOV-2002;
FEATURES
LOCATION/Qualifiers
1..610
/organism="unknown"
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ORIGIN
Query Match 100.0%; Score 402; DB 6; Length 610;
Best Local Similarity 100.0%; Pred. No. 2,1e-218;
Matches 402; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 ATGAGAAATGCTTGAATTTGATTTGCTAGCTTGGGCTGCTATGTTTCTGCTTT 60
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Qy 61 GCTGTAGAAAATCCCATGATATGACTGTGTGACAGACCTTGACACTGCTTCCACTCAT 120
Db 89 GCTGTAGAAAATCCCATGATATGACTGTGTGACAGACCTTGACACTGCTTCCACTCAT 148
Qy 121 CGAAGCTGGCTGATAGGCGATGGGAACTGATGATTCCTACTCTGAAAAATAAAAATCAC 180
Db 149 CGAAGCTGGCTGATAGGCGATGGGAACTGATGATTCCTACTCTGAAAAATAAAAATCAC 208
Qy 181 CAACTGTGACATTAAAGAAAGTTTTCAGGGTATAGACACATTGAAGAACCAAACTGCCAC 240
Db 209 CAACTGTGACATTAAAGAAAGTTTTCAGGGTATAGACACATTGAAGAACCAAACTGCCAC 268
Qy 241 GGGGAGGCTGTGATTAACCTATTCGAAAACTGTCTTTAATAAAGAACATAGAGCGC 300
Db 269 GGGGAGGCTGTGATTAACCTATTCGAAAACTGTCTTTAATAAAGAACATAGAGCGC 328
Qy 301 CAAAAAAGAGTGTGACGAGGAGAAAGATGAGAGTGAACAAAGTCCATGACTACTGCA 360
Db 329 CAAAAAAGAGTGTGACGAGGAGAAAGATGAGAGTGAACAAAGTCCATGACTACTGCA 388
Qy 361 GTATTCTGTGTATTAACACCGAGTGACACCGGAAAGT 402
Db 389 GTATTCTGTGTATTAACACCGAGTGACACCGGAAAGT 430

RESULT 13
AR254493/c
LOCUS AR254493 610 bp DNA linear PAT 20-DEC-2002
DEFINITION AR254493
ACCESSION AR254493
VERSION AR254493.1 GI:27303381
KEYWORDS
SOURCE Unknown.
ORGANISM Unknown.
REFERENCE 1 (bases 1 to 610)
AUTHORS Sim,G.-K., Yang,S., Dreitz,M.J. and Wonderling,R.S.
TITLE Canine IL-13 immunoregulatory proteins and uses thereof
JOURNAL Patent: US 6482403-A 82 19-NOV-2002;
FEATURES
LOCATION/Qualifiers
1..610
/organism="unknown"
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ORIGIN

Query Match 100.0%; Score 402; DB 6; Length 610;
Best Local Similarity 100.0%; Pred. No. 2.1e-218;
Matches 402; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 ATGGAATGCTTCTGAAATTTGAGTTTGTAGCTCTTGGGGCTGCTATGTTTCTGCTTT 60
DB 582 ATGGAATGCTTCTGAAATTTGAGTTTGTAGCTCTTGGGGCTGCTATGTTTCTGCTTT 523
QY 61 GCTGTAGAAAATCCCATGATAGACTGGTGGCAGAGACTTGACACAGCTGCTCCACTCAT 120
DB 522 GCTGTAGAAAATCCCATGATAGACTGGTGGCAGAGACTTGACACAGCTGCTCCACTCAT 463
QY 121 CGAATCTGGCTGATAGGGGATGGGAACTGATGATCTTCTACTCTGAAAATAAAATCAC 180
DB 462 CGAATCTGGCTGATAGGGGATGGGAACTGATGATCTTCTACTCTGAAAATAAAATCAC 403
QY 181 CAATCTGTCATTAAGAAGTTTTCAGGGTATAGACATTTGAAGAACCAAACTGCCAC 240
DB 402 CAATCTGTCATTAAGAAGTTTTCAGGGTATAGACATTTGAAGAACCAAACTGCCAC 343
QY 241 GGGGAGGCTGTGATTAACATATTCGAAACCTGTCTTATTAATAAAGACATAGAGGCG 300
DB 342 GGGGAGGCTGTGATTAACATATTCGAAACCTGTCTTATTAATAAAGACATAGAGGCG 283
QY 301 CAAAAAAGAGTGTGACAGAGAAAGATGAGAGTGAAGTTCCTAGACTACCTGCA 360
DB 282 CAAAAAAGAGTGTGACAGAGAAAGATGAGAGTGAAGTTCCTAGACTACCTGCA 223
QY 361 GTATTTCTGTGTATTAACACCGAGTGAACCGGAACT 402
DB 222 GTATTTCTGTGTATTAACACCGAGTGAACCGGAACT 181

RESULT 14
AR300436 405 bp DNA linear PAT 12-JUN-2003
LOCUS AR300436
DEFINITION Sequence 1 from patient US 6537781.
ACCESSION AR300436
VERSION AR300436.1 GI:11687875
KEYWORDS
SOURCE Unknown.
ORGANISM Unknown.
REFERENCE 1 (bases 1 to 405)
AUTHORS Guo, H., Lawton, R., Mermer, B. and Aiyappa, A. P.
TITLE Methods and compositions concerning canine interleukin 5
JOURNAL Patent: US 6537781-A 1 25-MAR-2003;
FEATURES
location/Qualifiers
1..405
/organism="unknown"
/mol_type="genomic DNA"

ORIGIN
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Best Local Similarity 100.0%; Pred. No. 2.9e-213;
Matches 393; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 ATGGAATGCTTCTGAAATTTGAGTTTGTAGCTCTTGGGGCTGCTATGTTTCTGCTTT 60
DB 1 ATGGAATGCTTCTGAAATTTGAGTTTGTAGCTCTTGGGGCTGCTATGTTTCTGCTTT 60
QY 61 GCTGTAGAAAATCCCATGATAGACTGGTGGCAGAGACTTGACACAGCTGCTCCACTCAT 120
DB 61 GCTGTAGAAAATCCCATGATAGACTGGTGGCAGAGACTTGACACAGCTGCTCCACTCAT 120
QY 121 CGAATCTGGCTGATAGGGGATGGGAACTGATGATCTTCTACTCTGAAAATAAAATCAC 180
DB 121 CGAATCTGGCTGATAGGGGATGGGAACTGATGATCTTCTACTCTGAAAATAAAATCAC 180
QY 181 CAATCTGTCATTAAGAAGTTTTCAGGGTATAGACATTTGAAGAACCAAACTGCCAC 240
DB 181 CAATCTGTCATTAAGAAGTTTTCAGGGTATAGACATTTGAAGAACCAAACTGCCAC 240

QY 241 GGGGAGGCTGTGATTAACATATTCGAAACCTGTCTTATTAATAAAGACATAGAGGCG 300
DB 241 GGGGAGGCTGTGATTAACATATTCGAAACCTGTCTTATTAATAAAGACATAGAGGCG 300
QY 301 CAAAAAAGAGTGTGACAGAGAAAGATGAGAGTGAAGTTCCTAGACTACCTGCA 360
DB 301 CAAAAAAGAGTGTGACAGAGAAAGATGAGAGTGAAGTTCCTAGACTACCTGCA 360
QY 361 GTATTTCTGTGTATTAACACCGAGTGAACCGGAACT 393
DB 361 GTATTTCTGTGTATTAACACCGAGTGAACCGGAACT 393

RESULT 15
AX083939 405 bp DNA linear PAT 22-JUN-2001
LOCUS AX083939
DEFINITION Sequence 1 from Patent WO0111049.
ACCESSION AX083939
VERSION AX083939.2 GI:14532940
KEYWORDS
SOURCE
ORGANISM Canis familiaris (dog)
Canis familiaris
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Carnivora; Fissipedia; Canidae; Canis.
REFERENCE 1
AUTHORS Guo, H., Lawton, R., Mermer, B. and Aiyappa, A. P.
TITLE Methods and compositions concerning canine interleukin 5
JOURNAL Patent: WO 0111049-A 1 15-FEB-2001;
COMMENT IDEX LABORATORIES, INC. (US)
FEATURES
location/Qualifiers
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/organism="Canis familiaris"
/mol_type="unassigned DNA"
/db_xref="taxon:9615"

ORIGIN
Query Match 97.8%; Score 393; DB 6; Length 405;
Best Local Similarity 100.0%; Pred. No. 2.9e-213;
Matches 393; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 ATGGAATGCTTCTGAAATTTGAGTTTGTAGCTCTTGGGGCTGCTATGTTTCTGCTTT 60
DB 1 ATGGAATGCTTCTGAAATTTGAGTTTGTAGCTCTTGGGGCTGCTATGTTTCTGCTTT 60
QY 61 GCTGTAGAAAATCCCATGATAGACTGGTGGCAGAGACTTGACACAGCTGCTCCACTCAT 120
DB 61 GCTGTAGAAAATCCCATGATAGACTGGTGGCAGAGACTTGACACAGCTGCTCCACTCAT 120
QY 121 CGAATCTGGCTGATAGGGGATGGGAACTGATGATCTTCTACTCTGAAAATAAAATCAC 180
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QY 181 CAATCTGTCATTAAGAAGTTTTCAGGGTATAGACATTTGAAGAACCAAACTGCCAC 240
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DB 301 CAAAAAAGAGTGTGACAGAGAAAGATGAGAGTGAAGTTCCTAGACTACCTGCA 360
QY 361 GTATTTCTGTGTATTAACACCGAGTGAACCGGAACT 393
DB 361 GTATTTCTGTGTATTAACACCGAGTGAACCGGAACT 393

Search completed: August 8, 2005, 20:39:49
Job time: 1936.27 secs

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CC used as vaccines for therapeutic or prophylactic regulation of an immune

CC response in animals (particularly cats, dogs, horses and humans). They
CC may be used to treat autoimmune or infectious diseases including
CC allergies, tumours, inflammation and graft rejection, and to increase the
CC response from a co-administered antigen. The nucleotide sequences can
CC also be used for the recombinant production of a protein, while
CC nucleotide fragments are useful as probes, as amplification primers and
CC as sources of inhibitory therapeutics (e.g., antisense oligonucleotides).
CC The proteins may be used to raise antibodies and to screen for modulators
CC of activity, while the antibodies may be used in detection, and in drug
CC targeting

XX Sequence 402 BP; 129 A; 79 C; 93 G; 101 T; 0 U; 0 Other;

Query Match 100.0%; Score 402; DB 3; Length 402;

Best Local Similarity 100.0%; Pred. No. 3.6e-198;

Matches 402; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

```
QY 1 ATGAGATGCTTCTGAATTTGAGTTTCTAGCTTTGGGGCTGCTTATGTTTCTGCTTT 60
DB 1 ATGAGATGCTTCTGAATTTGAGTTTCTAGCTTTGGGGCTGCTTATGTTTCTGCTTT 60
QY 61 GCTGTAGAAAATCCCATGATAGACTGGTGGCAGAGACTTGACACTGCTCTCCACTCAT 120
DB 61 GCTGTAGAAAATCCCATGATAGACTGGTGGCAGAGACTTGACACTGCTCTCCACTCAT 120
QY 121 CGAATCTGGCTGATAGGCGATGGAGACCTGATGATCTTCTACTCTGAAAATATAATCAC 180
DB 121 CGAATCTGGCTGATAGGCGATGGAGACCTGATGATCTTCTACTCTGAAAATATAATCAC 180
QY 181 CAACTGTCGCTAATAAGAAAGTTTTCAGGCTATAGCATTAAGAAACCAACCTGCCAC 240
DB 181 CAACTGTCGCTAATAAGAAAGTTTTCAGGCTATAGCATTAAGAAACCAACCTGCCAC 240
QY 241 GGGAGGCTGTGATTAACCTATTCCTTAATTAATAAGAAACATAGAGCGC 300
DB 241 GGGAGGCTGTGATTAACCTATTCCTTAATTAATAAGAAACATAGAGCGC 300
QY 301 CAAAAAAGGTGTGACAGAGAAAGATGAGAGTGAACAAAGTTCTTACACTGCGAA 360
DB 301 CAAAAAAGGTGTGACAGAGAAAGATGAGAGTGAACAAAGTTCTTACACTGCGAA 360
QY 361 GTATTTCTGTGATTAATAACACCGAGTGAACCGGAAAGT 402
DB 361 GTATTTCTGTGATTAATAACACCGAGTGAACCGGAAAGT 402
```

RESULT 2

AA25549/c
AA25549 standard; cDNA; 402 BP.

XX AA25549;

DT 14-MAR-2000 (first entry)

XX Canine interleukin-5 (IL-5) cDNA coding region complement.

XX Interleukin-5; IL-5; antibody; canine; inhibitor; immune response;

XX immunoregulation; tumour; cancer; autoimmune disease; vaccine; ss.

XX Canis familiaris.

XX MO9961618-A2.

XX 02-DEC-1999.

XX 26-MAY-1999; 99MO-US011942.

XX 29-MAY-1998; 98US-0087306P.

XX (HESK-) HESKA CORP.

XX Slim G, Yang S, Dreitz MJ, Wonderling RS;

DR WPI, 2000-072623/06.

DR P-PSDB; AAY58219.

XX Nucleic acids encoding immunoregulatory proteins from cats or dogs.

PT Useful for treating or preventing e.g. tumours or autoimmune disease.

XX Claim 1h; Page 226; 264pp; English.

XX Sequences AA25546-25551 represent cDNA sequences encoding canine

CC interleukin-5 (IL-5). The invention relates to canine IL-4, canine or

CC feline Flt-3 ligand, canine or feline CD40, canine or feline CD154 (CD40

CC ligand), canine IL-5, canine IL-13, feline interferon-alpha (IFN-alpha)

CC and feline granulocyte macrophage colony-stimulating factor (GM-CSF), and

CC nucleotides which encode these immunoregulatory proteins. The proteins,

CC their associated nucleic acids, specific antibodies and inhibitors may be

CC used as vaccines for therapeutic or prophylactic regulation of an immune

CC response in animals (particularly cats, dogs, horses and humans). They

CC may be used to treat autoimmune or infectious diseases including

CC allergies, tumours, inflammation and graft rejection, and to increase the

CC response from a co-administered antigen. The nucleotide sequences can

CC also be used for the recombinant production of a protein, while

CC nucleotide fragments are useful as probes, as amplification primers and

CC as sources of inhibitory therapeutics (e.g., antisense oligonucleotides).

CC The proteins may be used to raise antibodies and to screen for modulators

CC of activity, while the antibodies may be used in detection, and in drug

CC targeting

XX Sequence 402 BP; 101 A; 93 C; 79 G; 129 T; 0 U; 0 Other;

Query Match 100.0%; Score 402; DB 3; Length 402;

Best Local Similarity 100.0%; Pred. No. 3.6e-198;

Matches 402; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

```
QY 1 ATGAGATGCTTCTGAATTTGAGTTTCTAGCTTTGGGGCTGCTTATGTTTCTGCTTT 60
DB 402 ATGAGATGCTTCTGAATTTGAGTTTCTAGCTTTGGGGCTGCTTATGTTTCTGCTTT 60
QY 61 GCTGTAGAAAATCCCATGATAGACTGGTGGCAGAGACTTGACACTGCTCTCCACTCAT 120
DB 61 GCTGTAGAAAATCCCATGATAGACTGGTGGCAGAGACTTGACACTGCTCTCCACTCAT 120
QY 121 CGAATCTGGCTGATAGGCGATGGAGACCTGATGATCTTCTACTCTGAAAATATAATCAC 180
DB 121 CGAATCTGGCTGATAGGCGATGGAGACCTGATGATCTTCTACTCTGAAAATATAATCAC 180
QY 181 CAACTGTCGCTAATAAGAAAGTTTTCAGGCTATAGCATTAAGAAACCAACCTGCCAC 240
DB 181 CAACTGTCGCTAATAAGAAAGTTTTCAGGCTATAGCATTAAGAAACCAACCTGCCAC 240
QY 241 GGGAGGCTGTGATTAACCTATTCCTTAATTAATAAGAAACATAGAGCGC 300
DB 241 GGGAGGCTGTGATTAACCTATTCCTTAATTAATAAGAAACATAGAGCGC 300
QY 301 CAAAAAAGGTGTGACAGAGAAAGATGAGAGTGAACAAAGTTCTTACACTGCGAA 360
DB 301 CAAAAAAGGTGTGACAGAGAAAGATGAGAGTGAACAAAGTTCTTACACTGCGAA 360
QY 361 GTATTTCTGTGATTAATAACACCGAGTGAACCGGAAAGT 402
DB 42 GTATTTCTGTGATTAATAACACCGAGTGAACCGGAAAGT 1
```

RESULT 3

AA25546
AA25546 standard; cDNA; 610 BP.

XX AA25546;

DT 14-MAR-2000 (first entry)

XX Canine interleukin-5 (IL-5) cDNA.

XX Interleukin-5; IL-5; antibody; canine; inhibitor; immune response;

XX	immunoregulation; tumour; cancer; autoimmune disease; vaccine; ss..
OS	Canis familiaris.
FH	Key Location/Qualifiers
FT	CDS 29..433
FT	/*tag= a
FT	/product= "Canine IL-5"
XX	
PN	W09961618-A2.
XX	
PD	02-DEC-1999.
XX	
PF	28-MAY-1999; 99WO-US011942.
XX	
PR	29-MAY-1998; 98US-0087306P.
XX	
PA	(HESK-) HESKA CORP.
PI	Sim G, Yang S, Dreitz MJ, Wonderling RS;
DR	WPI; 2000-072623/06.
XX	
DR	P-PsDB; AAY58219.
XX	
PT	Nucleic acids encoding immunoregulatory proteins from cats or dogs,
PT	useful for treating or preventing e.g. tumors or autoimmune disease.
XX	
PS	Claim 1h; Page 223-224; 264pp; English.
XX	
CC	Sequences AA255546-255551 represent cDNA sequences encoding canine
CC	interleukin-5 (IL-5). The invention relates to canine IL-4, canine or
CC	feline FLT-3 ligand, canine or feline CD40, canine or feline CD154 (CD40
CC	ligand), canine IL-5, canine IL-13, feline interferon-alpha (IFN-alpha)
CC	and feline granulocyte macrophage colony-stimulating factor (GM-CSF), and
CC	nucleotides which encode these immunoregulatory proteins. The proteins,
CC	their associated nucleic acids, specific antibodies and inhibitors may be
CC	used as vaccines for therapeutic or prophylactic regulation of an immune
CC	response in animals (particularly cats, dogs, horses and humans). They
CC	may be used to treat autoimmune or infectious diseases including
CC	allergies, tumours, inflammation and graft rejection, and to increase the
CC	response from a co-administered antigen. The nucleotide sequences can
CC	also be used for the recombinant production of a protein, while
CC	nucleotide fragments are useful as probes, as amplification primers and
CC	as sources of inhibitory therapeutics (e.g., antisense oligonucleotides).
CC	The proteins may be used to raise antibodies and to screen for modulators
CC	of activity, while the antibodies may be used in detection, and in drug
CC	targeting
XX	
SQ	Sequence 610 BP; 202 A; 114 C; 139 G; 155 T; 0 U; 0 Other;
XX	
Query Match	100.0%; Score 402; DB 3; Length 610;
Best Local Similarity	100.0%; Pred. No. 3.6e-199;
Matches	402; Conservative 0; Mismatches 0; Indels 0; Gaps 0
OY	1 ATGAGAAATGCTTGAATTGAGTTGTAGCTCTTGCGGGCTGCCTAATGTTTCGCCITTT 60
Db	29 ATGAGAAATGCTTGAATTGAGTTGTAGCTCTTGCGGGCTGCCTAATGTTTCGCCITTT 88
OY	61 GGTGTAGAAAAATCCCATGTAATGACGTCGGGAGAGAACCTTAGACAATGCTCCTCACTAT 120
Db	89 GGTGTAGAAAAATCCCATGTAATGACGTCGGGAGAGAACCTTAGACAATGCTCCTCACTAT 148
OY	121 CGAATCTGGCTGATAGCGCATGGGAACTGATGATTCCTACTCTGTAATAATAAATCAC 180
Db	149 CGAATCTGGCTGATAGCGCATGGGAACTGATGATTCCTACTCTGTAATAATAAATCAC 208
OY	181 CAATGTGCAATTAAGAAGATTTTTTCAGGGTATAGACACATTGAAGAACCAATCTGCCAC 240
Db	209 CAATGTGCAATTAAGAAGATTTTTTCAGGGTATAGACACATTGAAGAACCAATCTGCCAC 268
OY	241 GGGGAGCGTCGTGTGATTAATATATCCAAAATCTGCTTTTAATAAAGAAACATAGAGCGC 300
Db	269 GGGGAGCGCGTGTGATTAATATATCCAAAATCTGCTTTTAATAAAGAAACATAGAGCGC 328

Qy	301	CAAAAAAAAAAGTGGCAGCGAGAAAGATGAGAGATCAAAAGTTCTTACACTACCTGGCAA	361
Db	329	CAAAAAAAAAAGTGTGCGAGCGAANAAGATGAGAGATGACAAAGTTCTTACACTACCTGCAA	388
Qy	361	GTATTTCTTGGTGTATATAACACCGAGTGCACACCGGAAAGT	402
Db	389	GTATTTCTTGGTGTATATAACACCGAGTGCACACCGGAAAGT	430
RESULT 4			
ID	AAZ55547/C		
AC	AAZ55547 standard; cDNA; 610 BP.		
XX	AAZ55547;		
DT	14-MAR-2000 (first entry)		
DE	Canine interleukin-5 (IL-5) cDNA complement.		
XX	Interleukin-5; IL-5; antibody; canine; inhibitor; immune response;		
KW	immunoregulation; tumour; cancer; autoimmune disease; vaccine; ss.		
XX	Canis familiaris.		
OS			
XX	Key	Location/Qualifiers	
FH	CDS	complement(178..582)	
FT	CDS	/*tag= a	
FT		/product= "Canine IL-5"	
PN	MO9961618-A2.		
PD	02-DEC-1999.		
XX			
PF	28-MAY-1999; 99WO-US011942.		
XX			
PR	29-MAY-1998; 98US-0087306P.		
PA	(HESK-) HESKA CORP.		
PI	Sim G, Yang S, Dretz MJ, Wonderling RS;		
DR	WPI; 2000-072623/06.		
XX	P-PSDB; AAY58219.		
XX			
PT	Nucleic acids encoding immunoregulatory proteins from cats or dogs,		
XX	useful for treating or preventing e.g. tumors or autoimmune disease.		
PS	Claim 1h; Page 224-225; 264pp; English.		
XX			
CC	Sequences AAZ55546-255551 represent cDNA sequences encoding canine		
CC	interleukin-5 (IL-5). The invention relates to canine IL-4, canine or		
CC	feline Flt-3 ligand, canine or feline CD40, canine or feline CD154 (CD40		
CC	ligand), canine IL-5, canine IL-13, feline interferon-alpha (IFN-alpha)		
CC	and feline granulocyte macrophage colony-stimulating factor (GM-CSF), and		
CC	nucleotides which encode these immunoregulatory proteins. The proteins,		
CC	their associated nucleic acids, specific antibodies and inhibitors may be		
CC	used as vaccines for therapeutic or prophylactic regulation of an immune		
CC	response in animals (particularly cats, dogs, horses and humans). They		
CC	may be used to treat autoimmune or infectious diseases including		
CC	allergies, tumours, inflammation and graft rejection, and to increase the		
CC	response from a co-administered antigen. The nucleotide sequences can		
CC	also be used for the recombinant production of a protein, while		
CC	nucleotide fragments are useful as probes, as amplification primers and		
CC	as sources of inhibitory therapeutics (e.g., antisense oligonucleotides).		
CC	The proteins may be used to raise antibodies and to screen for modulators		
CC	of activity, while the antibodies may be used in detection, and in drug		
XX	targeting		
XX			
SQ	Sequence 610 BP; 155 A; 139 C; 114 G; 202 T; 0 U; 0 Other;		
Query Match	100.0%; Score 402; DB 3; Length 610;		
Beet Local Similarity	100.0%; Pred. No. 3.6e-196;		

Matches 402; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

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QY 1 ATGAGAAATGCTTGAATTTGAGTTTCTAGCTTGGGGCTGCTATGTTTCTGCTTT 60
Db 582 ATGAGAAATGCTTGAATTTGAGTTTCTAGCTTGGGGCTGCTATGTTTCTGCTTT 523
QY 61 GCTGTAAAAATCCCATGATAGACTGTGCGAGAGACTTGACACTGCTCTCCATCAT 120
Db 522 GCTGTAAAAATCCCATGATAGACTGTGCGAGAGACTTGACACTGCTCTCCATCAT 463
QY 121 CGAAGTGGCTGATAGGCGATGGGACCTGATGCTCTGCTGAAAAATTAATAC 180
Db 462 CGAAGTGGCTGATAGGCGATGGGACCTGATGCTCTGCTGAAAAATTAATAC 403
QY 181 CAACGTGCACTTAAAGAGTTTTCAGGGTATAGACATTTGAAGAACCAACTGCCAC 240
Db 402 CAACGTGCACTTAAAGAGTTTTCAGGGTATAGACATTTGAAGAACCAACTGCCAC 343
QY 241 GGGGAGGCTGTGATTAACATTTCCAAAACCTGCTTTAATAAAGAACATAGAGCG 300
Db 342 GGGGAGGCTGTGATTAACATTTCCAAAACCTGCTTTAATAAAGAACATAGAGCG 283
QY 301 CAAAAAAGAGTGTGCGAGAGAGATGGAGTGAACAAAGTTCTAGACTACCTGCAA 360
Db 282 CAAAAAAGAGTGTGCGAGAGAGATGGAGTGAACAAAGTTCTAGACTACCTGCAA 223
QY 361 GTATTTCTGTGTATTAACACCGAGTGCACACCGGAAAGT 402
Db 222 GTATTTCTGTGTATTAACACCGAGTGCACACCGGAAAGT 181

```

RESULT 5

AAF74300 standard; DNA; 405 BP.

AAF74300;

04-MAY-2001 (first entry)

Canine Interleukin-5 coding sequence #1.

Dog; interleukin-5; IL-5; allergy; cancer; gene therapy;
inflammatory reaction; ds.

Canis sp.

MO200111049-A2.

15-FEB-2001.

09-AUG-2000; 2000MO-US021651.

10-AUG-1999; 99US-00971615.

(IDEX-) IDEXX LAB INC.

Guo H, Lawton R, Mermer B, Aliyappa AP;

WPI; 2001-191542/19.

P-PSDB; AAB72615.

Novel canine interleukin 5 polynucleotide and polypeptides are used for
generating antibodies which are useful in treating allergies in dogs.

Claim 31; Page 46; 48pp; English.

The present invention provides the protein and coding sequences of the
canine interleukin-5 (IL-5) protein. This can be used to treat allergies,
cancer and inflammatory reactions in dogs. The present sequence is one
version of the IL-5 coding sequence shown in the specification

Sequence 405 BP; 131 A; 77 C; 94 G; 103 T; 0 U; 0 Other;

Query Match 97.8%; Score 393; DB 4; Length 405;
Best Local Similarity 100.0%; Pred. No. 1.7e-193;
Matches 393; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

```

QY 1 ATGAGAAATGCTTGAATTTGAGTTTCTAGCTTGGGGCTGCTATGTTTCTGCTTT 60
Db 1 ATGAGAAATGCTTGAATTTGAGTTTCTAGCTTGGGGCTGCTATGTTTCTGCTTT 60
QY 61 GCTGTAAAAATCCCATGATAGACTGTGCGAGAGACTTGACACTGCTCTCCATCAT 120
Db 61 GCTGTAAAAATCCCATGATAGACTGTGCGAGAGACTTGACACTGCTCTCCATCAT 120
QY 121 CGAAGTGGCTGATAGGCGATGGGACCTGATGCTCTGCTGAAAAATTAATAC 180
Db 121 CGAAGTGGCTGATAGGCGATGGGACCTGATGCTCTGCTGAAAAATTAATAC 180
QY 181 CAACGTGCACTTAAAGAGTTTTCAGGGTATAGACATTTGAAGAACCAACTGCCAC 240
Db 181 CAACGTGCACTTAAAGAGTTTTCAGGGTATAGACATTTGAAGAACCAACTGCCAC 240
QY 241 GGGGAGGCTGTGATTAACATTTCCAAAACCTGCTTTAATAAAGAACATAGAGCG 300
Db 241 GGGGAGGCTGTGATTAACATTTCCAAAACCTGCTTTAATAAAGAACATAGAGCG 300
QY 301 CAAAAAAGAGTGTGCGAGAGAGATGGAGTGAACAAAGTTCTAGACTACCTGCAA 360
Db 301 CAAAAAAGAGTGTGCGAGAGAGATGGAGTGAACAAAGTTCTAGACTACCTGCAA 360
QY 361 GTATTTCTGTGTATTAACACCGAGTGCACACCGGAAAGT 402
Db 361 GTATTTCTGTGTATTAACACCGAGTGCACACCGGAAAGT 393

```

RESULT 6

AAZ55550 standard; cDNA; 345 BP.

AAZ55550;

14-MAR-2000 (first entry)

Canine mature interleukin-5 (IL-5) cDNA.

Interleukin-5; IL-5; antibody; canine; inhibitor; immune response;
immunoregulation; tumour; cancer; autoimmune disease; vaccine; ss.

Canis familiaris.

WO961618-A2.

02-DEC-1999.

28-MAY-1999; 99WO-US011942.

29-MAY-1998; 98US-0087306P.

(HESK-) HESKA CORP.

Sim G, Yang S, Dreitz MJ, Wonderling RS;

WPI; 2000-072623/06.

P-PSDB; AAY58220.

Nucleic acids encoding immunoregulatory proteins from cats or dogs,
useful for treating or preventing e.g. tumors or autoimmune disease.

Claim 1b; Page 226-227; 264pp; English.

Sequences AAZ55546-55551 represent cDNA sequences encoding canine
interleukin-5 (IL-5). The invention relates to canine IL-4, canine or
feline Flt-3 ligand, canine or feline CD40, canine or feline CD134 (CD40
ligand), canine IL-5, canine IL-13, feline interferon-alpha (IFN-alpha)
and feline granulocyte macrophage colony-stimulating factor (GM-CSF), and

CC nucleotides which encode these immunoregulatory proteins. The proteins, CC
 CC their associated nucleic acids, specific antibodies and inhibitors may be CC
 CC used as vaccines for therapeutic or prophylactic regulation of an immune CC
 CC response in animals (particularly cats, dogs, horses and humans). They CC
 CC may be used to treat autoimmune or infectious diseases including CC
 CC allergies, tumours, inflammation and graft rejection, and to increase the CC
 CC response from a co-administered antigen. The nucleotide sequences can CC
 CC also be used for the recombinant production of a protein, while CC
 CC nucleotide fragments are useful as probes, as amplification primers and CC
 CC as sources of inhibitory therapeutics (e.g., antisense oligonucleotides). CC
 CC The proteins may be used to raise antibodies and to screen for modulators CC
 CC of activity, while the antibodies may be used in detection, and in drug CC
 CC targeting

SO Sequence 345 BP; 120 A; 68 C; 78 G; 79 T; 0 U; 0 Other;

Query Match 85.8%; Score 345; DB 3; Length 345;
 Best Local Similarity 100.0%; Pred. No. 1,4e-168;
 Matches 345; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 58 TTGCTGTAGAAATCCCATGAATGACTGTGGCAGAGACCTTGACACTGCTCCACT 117
 Db 1 TTGCTGTAGAAATCCCATGAATGACTGTGGCAGAGACCTTGACACTGCTCCACT 60
 QY 118 CATGCACTTGCTGATAGGCGATGGGAACTGATGATCTCTACTCTGAAATATAAT 177
 Db 61 CATGCACTTGCTGATAGGCGATGGGAACTGATGATCTCTACTCTGAAATATAAT 120

QY 178 CACCACTGTGCTATTAAAGAAAGTTTTCAGGGTATAGACACATTGAAGAACCAACTGCC 237
 Db 121 CACCACTGTGCTATTAAAGAAAGTTTTCAGGGTATAGACACATTGAAGAACCAACTGCC 180

QY 238 CACGGGAGGCTGTGATTAACCTATTCGAAACCTGCTTTAATAAAGAACACATAGAG 297
 Db 181 CACGGGAGGCTGTGATTAACCTATTCGAAACCTGCTTTAATAAAGAACACATAGAG 240

QY 298 CGCCAAATAAAGGTGTCAGAGAAAGATGAGAGTGAACAAGTCTAGACTACTG 357
 Db 241 CGCCAAATAAAGGTGTCAGAGAAAGATGAGAGTGAACAAGTCTAGACTACTG 300

QY 358 CAAGTATTTCTTGCTGTATTAACACCGAGTGAACCGGAAAGT 402
 Db 301 CAAGTATTTCTTGCTGTATTAACACCGAGTGAACCGGAAAGT 345

RESULT 7
 AA25551/c
 ID AA25551 standard; cDNA; 345 BP.

AC AA25551;
 XX
 DT 14-MAR-2000 (first entry)
 DE Canine mature interleukin-5 (IL-5) cDNA complement.
 XX
 KM Interleukin-5; IL-5; antibody; canine; inhibitor; immune response;
 KM Immunoregulation; tumour; cancer; autoimmune disease; vaccine; ss.
 XX
 OS Canis familiaris.
 XX
 PN WO9961618-A2.
 XX
 PD 02-DEC-1999.
 XX
 PF 28-MAY-1999; 99WO-US011942.
 XX
 PR 29-MAY-1998; 98US-0087306P.
 XX
 PA (HESK-) HESKA CORP.
 XX
 PI Sim G, Yang S, Dreitz MJ, Wonderling RS;
 XX
 DR WPI; 2000-072623/06.

DR P-PSDB; AAY58220.
 XX
 XX Nucleic acids encoding immunoregulatory proteins from cats or dogs.
 PT useful for treating or preventing e.g. tumors or autoimmune disease.
 XX
 PS Claim 1h; Page 228; 264pp; English.

CC Sequences AA255546-255551 represent cDNA sequences encoding canine CC
 CC interleukin-5 (IL-5). The invention relates to canine IL-4, canine or CC
 CC feline Flt-3 ligand, canine or feline CD40, canine or feline CD154 (CD40 CC
 CC ligand), canine IL-5, canine IL-13, feline interferon-alpha (IFN-alpha) CC
 CC and feline granulocyte macrophage colony-stimulating factor (GM-CSF), and CC
 CC nucleotides which encode these immunoregulatory proteins. The proteins, CC
 CC their associated nucleic acids, specific antibodies and inhibitors may be CC
 CC used as vaccines for therapeutic or prophylactic regulation of an immune CC
 CC response in animals (particularly cats, dogs, horses and humans). They CC
 CC may be used to treat autoimmune or infectious diseases including CC
 CC allergies, tumours, inflammation and graft rejection, and to increase the CC
 CC response from a co-administered antigen. The nucleotide sequences can CC
 CC also be used for the recombinant production of a protein, while CC
 CC nucleotide fragments are useful as probes, as amplification primers and CC
 CC as sources of inhibitory therapeutics (e.g., antisense oligonucleotides). CC
 CC The proteins may be used to raise antibodies and to screen for modulators CC
 CC of activity, while the antibodies may be used in detection, and in drug CC
 CC targeting

SO Sequence 345 BP; 79 A; 78 C; 68 G; 120 T; 0 U; 0 Other;

Query Match 85.8%; Score 345; DB 3; Length 345;
 Best Local Similarity 100.0%; Pred. No. 1,4e-168;
 Matches 345; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 58 TTGCTGTAGAAATCCCATGAATGACTGTGGCAGAGACCTTGACACTGCTCCACT 117
 Db 345 TTGCTGTAGAAATCCCATGAATGACTGTGGCAGAGACCTTGACACTGCTCCACT 286

QY 118 CATGCACTTGCTGATAGGCGATGGGAACTGATGATCTCTACTCTGAAATATAAT 177
 Db 285 CATGCACTTGCTGATAGGCGATGGGAACTGATGATCTCTACTCTGAAATATAAT 226

QY 178 CACCACTGTGCTATTAAAGAAAGTTTTCAGGGTATAGACACATTGAAGAACCAACTGCC 237
 Db 225 CACCACTGTGCTATTAAAGAAAGTTTTCAGGGTATAGACACATTGAAGAACCAACTGCC 166

QY 238 CACGGGAGGCTGTGATTAACCTATTCGAAACCTGCTTTAATAAAGAACACATAGAG 297
 Db 165 CACGGGAGGCTGTGATTAACCTATTCGAAACCTGCTTTAATAAAGAACACATAGAG 106

QY 298 CGCCAAATAAAGGTGTCAGAGAAAGATGAGAGTGAACAAGTCTAGACTACTG 357
 Db 105 CGCCAAATAAAGGTGTCAGAGAAAGATGAGAGTGAACAAGTCTAGACTACTG 46

QY 358 CAAGTATTTCTTGCTGTATTAACACCGAGTGAACCGGAAAGT 402
 Db 45 CAAGTATTTCTTGCTGTATTAACACCGAGTGAACCGGAAAGT 1

RESULT 8
 AAF74306
 ID AAF74306 standard; DNA; 393 BP.

AC AAF74306;
 XX
 DT 04-MAY-2001 (first entry)
 DE Canine interleukin-5 coding sequence #3.
 XX
 KM Dog; interleukin-5; IL-5; allergy; cancer; gene therapy;
 KM inflammatory reaction; ds.
 XX
 OS Canis sp.
 XX
 PN WO200111049-A2.

```
XX 15-FEB-2001.
XX 09-AUG-2000; 2000WO-US021651.
XX 10-AUG-1999; 99US-00371615.
XX (IDEX-) IDEXX LAB INC.
XX Guo H, Lawton R, Mermer B, Aiyappa AP;
XX WPI; 2001-191542/19.
XX
XX The present invention provides the protein and coding sequences of the
XX canine interleukin-5 (IL-5) protein. This can be used to treat allergies,
XX cancer and inflammatory reactions in dogs. The present sequence is one
XX version of the IL-5 coding sequence shown in the specification
XX
XX Claim 1; Page 35; 48pp; English.
XX
XX The present invention provides the protein and coding sequences of the
XX canine interleukin-5 (IL-5) protein. This can be used to treat allergies,
XX cancer and inflammatory reactions in dogs. The present sequence is one
XX version of the IL-5 coding sequence shown in the specification
XX
XX Sequence 393 BP; 128 A; 82 C; 86 G; 97 T; 0 U; 0 Other;
XX
XX Query Match 67.2%; Score 270; DB 4; Length 393;
XX Best Local Similarity 100.0%; Pred. No. 1.3e-129;
XX Matches 270; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
XX
XX 103 ACACTGCTCCCACTCACTGCTGCTGATGCGGAGGAACTGATGATTCCTACT 162
XX 1 AACTGCTCTCCTCACTCACTGCTGCTGATGCGGAGGAACTGATGATTCCTACT 60
XX
XX 163 CCGTGAATATTAATCACTGCTGCTGATTAAGAATTTTTCAGGCTATAGACACTTG 222
XX 61 CCGTGAATATTAATCACTGCTGCTGATTAAGAATTTTTCAGGCTATAGACACTTG 120
XX
XX 223 AAGAACCAAACTGCCACGGGAGGCTGTGATTAACCTATTCCTTTTATA 282
XX 121 AAGAACCAAACTGCCACGGGAGGCTGTGATTAACCTATTCCTTTTATA 180
XX
XX 283 AAGAACCACTAGAGCGCCCAAAAAAAGGTGTCAGAGAAAGATGAGAGCAAG 342
XX 181 AAGAACCACTAGAGCGCCCAAAAAAAGGTGTCAGAGAAAGATGAGAGCAAG 240
XX
XX 343 TTCTAGACTACCTGCAAGTATTTCTTGT 372
XX 241 TTCTAGACTACCTGCAAGTATTTCTTGT 270
XX
XX
XX RESULT 9
XX AAF74305
XX ID AAF74305 standard; DNA; 252 BP.
XX
XX AAF74305;
XX
XX 04-MAY-2001 (first entry)
XX
XX Canine interleukin-5 coding sequence #2.
XX
XX Dog; interleukin-5; IL-5; allergy; cancer; gene therapy;
XX inflammatory reaction; ds.
XX
XX Canis sp.
XX
XX OS
XX PN WO200111049-A2.
XX PD 15-FEB-2001.
XX PF 09-AUG-2000; 2000WO-US021651.
XX PR 10-AUG-1999; 99US-00371615.
XX
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PA (IDEX-) IDEXX LAB INC.
XX Guo H, Lawton R, Mermer B, Aiyappa AP;
XX WPI; 2001-191542/19.
XX DR P-PDB; AAB72616.
XX
XX Novel canine interleukin 5 polynucleotide and polypeptides are used for
XX generating antibodies which are useful in treating allergies in dogs.
XX
XX Example 1; Fig 1; 48pp; English.
XX
XX The present invention provides the protein and coding sequences of the
XX canine interleukin-5 (IL-5) protein. This can be used to treat allergies,
XX cancer and inflammatory reactions in dogs. The present sequence is one
XX version of the IL-5 coding sequence shown in the specification
XX
XX Sequence 252 BP; 69 A; 54 C; 60 G; 69 T; 0 U; 0 Other;
XX
XX Query Match 62.7%; Score 252; DB 4; Length 252;
XX Best Local Similarity 100.0%; Pred. No. 2.8e-120;
XX Matches 252; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
XX
XX 1 ATGAGAAATGCTTCTGAATTTGACTTGTGCTTGGGGCTCCATATGTTTCTGCTTT 60
XX 1 ATGAGAAATGCTTCTGAATTTGACTTGTGCTTGGGGCTCCATATGTTTCTGCTTT 60
XX
XX 61 GCTGTGAAAATCCCATGAATAGACTGTGTGAGAGACCTTGACACTGCTCCACTCAT 120
XX 61 GCTGTGAAAATCCCATGAATAGACTGTGTGAGAGACCTTGACACTGCTCCACTCAT 120
XX
XX 121 CGAAGTGGCTGATAGCGCGATGGAACTGATGATTTCTACTCTGAAAAATTAATGAC 180
XX 121 CGAAGTGGCTGATAGCGCGATGGAACTGATGATTTCTACTCTGAAAAATTAATGAC 180
XX
XX 181 CAACGTGCACTTAAGAAGTTTTCAGGGTATAGACACTTAAGAACTGCCCCAC 240
XX 181 CAACGTGCACTTAAGAAGTTTTCAGGGTATAGACACTTAAGAACTGCCCCAC 240
XX
XX 241 GGGGAGGCTGTG 252
XX 241 GGGGAGGCTGTG 252
XX
XX
XX RESULT 10
XX AAT50756
XX ID AAT50756 standard; cDNA; 399 BP.
XX
XX AAT50756;
XX
XX 17-OCT-2003 (revised)
XX
XX 24-SEP-1997 (first entry)
XX
XX Ovine IL-5 cDNA.
XX
XX Cytokine; ovine; sheep; interleukin-5; interleukin-12; IL-5; IL-12;
XX livestock; cow; stress; transport; vaccine adjuvant; veterinary; cancer;
XX immunosuppression; allergy; reproductive system; growth; early maturity;
XX antibody; diagnosis; immunopotentiator;
XX early haematopoietic progenitor cell; cytotoxic cell; thymocyte;
XX secretion; IgM; IgA; bacterial endotoxin; gamma-interferon; ss.
XX
XX Ovis aries.
XX
XX OS
XX PN WO9700321-A1.
XX PD 03-JAN-1997.
XX PF 14-JUN-1996; 96WO-AU000360.
XX PR 14-JUN-1995; 95AU-00003502.
XX 27-OCT-1995; 95AU-00006244.
XX
```

PA (CSIR) COMMONWEALTH SCI & IND RES ORG.
XX
XX Seow H, Wood P;
XX
XX WPI: 1997-077528/07.
DR P-PSDB; AAM08479.
XX
PT Nucleic acid encoding ovine interleukin-5 or -12 - used as vaccine
PT adjuvants and to treat or prevent microbial infections in livestock.
XX
PS Claim 6, Page 41-42; 78pp; English.
XX
XX The sequences given in AAT50755-56 encode ovine interleukin-5 (IL-5).
CC Ovine IL-5 or IL-12 are used to treat and/or prevent infections in
CC livestock (esp. cows and sheep), particularly where the animals are
CC stressed, e.g. during transport. IL-5 and IL-12 can also be used as
CC adjuvants in vaccines for veterinary use (partic. weakly immunogenic
CC subunit or synthetic peptide vaccines). They may also be used to treat
CC cancer, immunosuppression and allergy, to enhance/suppress the
CC reproductive system and to promote growth or early maturity. Optionally
CC interleukin can be delivered from constructs or delivery cells and
CC antibodies are useful in enzyme immunoassays for rapid diagnosis of
CC infection. The interleukins are immunopotentiators, especially IL-5
CC promotes growth of early haematopoietic progenitor cells and generation
CC of cytotoxic cells from thymocytes, also it stimulates production and
CC secretion of IgM and IgA (in synergism with bacterial endotoxin). IL-12
CC induces production of gamma-interferon by, and proliferation of, T and NK
CC cells and increases the (non-)specific cytolytic lymphocyte response. The
CC genetic constructs can also be used for in vitro production of IL-5 or -
CC 12. (Updated on 17-OCT-2003 to standardise OS field)
XX
SQ Sequence 399 BP; 130 A; 77 C; 93 G; 99 T; 0 U; 0 Other;
Query Match 10.7%; Score 43; DB 2; Length 399;
Best Local Similarity 100.0%; Pred. No. 9.9e-12;
Matches 43; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
OY 74 CCATGATAGACTGTGGCAGAGACCTTGACACTGCTCTCCAC 116
Db 68 CCATGATAGACTGTGGCAGAGACCTTGACACTGCTCTCCAC 110
RESULT 11
AAT50755
ID AAT50755 standard; DNA; 520 BP.
XX
AC AAT50755;
XX
DT 17-OCT-2003 (revised)
DT 24-SEP-1997 (first entry)
XX
XX Ovine IL-5 gene.
XX
XX Cytokine; ovine; sheep; interleukin-5; interleukin-12; IL-5; IL-12;
KM livestock; cow; stress; transport; vaccine adjuvant; veterinary; cancer;
KM immunosuppression; allergy; reproductive system; growth; early maturity;
KM antibody; diagnosis; immunopotentiator;
KM early haematopoietic progenitor cell; cytotoxic cell; thymocyte;
KM secretion; IgM; IgA; bacterial endotoxin; gamma-interferon; ss.
XX
OS Ovis aries.
XX
FH Key location/Qualifiers
FT CDS 46..444
FT /*tag= a
FT /product= "Ovine_IL-5"
FT 46..183
FT /*tag= b
FT /number= 1
FT exon 184..216
FT /*tag= c
FT /number= 2
FT 217..345
FT exon

FT /*tag= d
FT /number= 3
FT exon 346..480
FT /*tag= e
FT /number= 4
XX
XX W09700321-A1.
XX
XX 03-JAN-1997.
XX
XX 14-JUN-1996; 96WO-AU000360.
XX
XX 14-JUN-1995; 95AU-00003502.
XX 27-OCT-1995; 95AU-00006244.
XX
PA (CSIR) COMMONWEALTH SCI & IND RES ORG.
XX
XX Seow H, Wood P;
XX
XX WPI: 1997-077528/07.
DR P-PSDB; AAM08479.
XX
XX Nucleic acid encoding ovine interleukin-5 or -12 - used as vaccine
XX adjuvants and to treat or prevent microbial infections in livestock.
XX
PS Claim 6, Page 39-40; 78pp; English.
XX
XX The sequences given in AAT50755-56 encode ovine interleukin-5 (IL-5).
CC Ovine IL-5 or IL-12 are used to treat and/or prevent infections in
CC livestock (esp. cows and sheep), particularly where the animals are
CC stressed, e.g. during transport. IL-5 and IL-12 can also be used as
CC adjuvants in vaccines for veterinary use (partic. weakly immunogenic
CC subunit or synthetic peptide vaccines). They may also be used to treat
CC cancer, immunosuppression and allergy, to enhance/suppress the
CC reproductive system and to promote growth or early maturity. Optionally
CC interleukin can be delivered from constructs or delivery cells and
CC antibodies are useful in enzyme immunoassays for rapid diagnosis of
CC infection. The interleukins are immunopotentiators, especially IL-5
CC promotes growth of early haematopoietic progenitor cells and generation
CC of cytotoxic cells from thymocytes, also it stimulates production and
CC secretion of IgM and IgA (in synergism with bacterial endotoxin). IL-12
CC induces production of gamma-interferon by, and proliferation of, T and NK
CC cells and increases the (non-)specific cytolytic lymphocyte response. The
CC genetic constructs can also be used for in vitro production of IL-5 or -
CC 12. (Updated on 17-OCT-2003 to standardise OS field)
XX
XX
SQ Sequence 520 BP; 166 A; 99 C; 124 G; 131 T; 0 U; 0 Other;
Query Match 10.7%; Score 43; DB 2; Length 520;
Best Local Similarity 100.0%; Pred. No. 1e-11;
Matches 43; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
OY 74 CCATGATAGACTGTGGCAGAGACCTTGACACTGCTCTCCAC 116
Db 113 CCATGATAGACTGTGGCAGAGACCTTGACACTGCTCTCCAC 155
RESULT 12
AAZ44265
ID AAZ44265 standard; DNA; 838 BP.
XX
AC AAZ44265;
XX
DT 31-MAR-2000 (first entry)
XX
XX Porcine IL-5 DNA.
XX
XX Pig; vaccine; cysticercosis; protective antigen; CC1; CC3; CC4;
KM tenial cysticercus; gamma interferon; IFN-gamma; interleukin 5; IL-5; ss.
XX
OS Sus scrofa.
XX
XX CN1231339-A.

XX 13-OCT-1999.
XX
XX 29-JAN-1999; 99CN-00113447.
XX
XX 29-JAN-1999; 99CN-00113447.
XX
XX (UTM-) UNIV NO 2 MILITARY MEDICAL PLA.
XX
XX Sun S, Dai J;
XX WPI; 2000-087904/08.
XX
XX Nucleic acid vaccine for cysticercosis co-contracted by human and pig.
XX
XX Claim 3; Page 9; 21pp; Chinese.
XX
XX This invention describes a novel nucleic acid vaccine for preventing and
XX curing human and pork cysticercosis. The invention involves the formation
XX of a eukaryotic expression plasmid from fusion transcript expression unit
XX consisting of three protective antigen genes (CC1, CC3 and CC4) of pig
XX conial cysticercus and coexpression unit of related cell factor gamma
XX interferon (IFN-gamma) and pork interleukin 5 (IL-5) genes. The
XX production and purification process of said nucleic acid vaccine is
XX simple and convenient, the physical and chemical properties of the
XX vaccine are stable, and the vaccine is easy to store and transport, and
XX possesses effective immunological protective function for human and pig
XX cysticercosis. This sequence represents the pig IL-5 gene used in the
XX method of the invention
XX
XX Sequence 838 BP; 280 A; 148 C; 171 G; 239 T; 0 U; 0 Other;
XX
XX Query Match 10.2%; Score 41; DB 3; Length 838;
XX Best Local Similarity 100.0%; Pred. No. 1.1e-10;
XX Matches 41; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
XX
XX 17 ATTGAGTTGCTAGCTCTGGGGCTGCTATGTTCTGCC 57
XX 61 ATTGAGTTGCTAGCTCTGGGGCTGCTATGTTCTGCC 101
XX
XX RESULT 13
XX AA057191 standard; mRNA; 27 BP.
XX
XX AA057191,
XX
XX 25-MAR-2003 (revised)
XX 26-JUL-1994 (first entry)
XX
XX Enzymatic RNA molecule IL-5 mRNA target sequence.
XX
XX Interleukin-5; specific; cleavage; target RNA; protein; expression;
XX inhibitor; inhibition; ribozyme; treatment; prophylaxis; prevention;
XX psoriasis; asthma; inflammatory diseases; resensitization;
XX cardiovascular condition; hypertension; arthritis; ss.
XX
XX Synthetic.
XX
XX MO9402595-A1.
XX
XX 03-FEB-1994.
XX
XX 02-JUL-1993; 93WO-US006316.
XX
XX 17-JUL-1992; 92US-00916763.
XX 07-DEC-1992; 92US-00887132.
XX 07-DEC-1992; 92US-00898489.
XX 07-DEC-1992; 92US-00898489.
XX 19-JAN-1993; 93US-00008895.
XX
XX (RIBO-) RIBOZYME PHARM INC.
XX

PI Sullivan SM, Draper KG;
XX
XX WPI; 1994-048853/06.
XX
XX Enzymatic RNA molecules which cleave mRNA - used to treat or prevent
XX PT inflammatory, arthritic, stenotic or cardiovascular diseases or
XX PT conditions.
XX
XX Claim 3; Page 17; 65pp; English.
XX
XX This is an IL-5 mRNA target sequence (nucleotide no. 61) of an enzymatic
XX RNA molecule (ribozyme) which cleaves mRNA associated with the
XX development or maintenance of a psoriatic or asthmatic condition. The
XX concn. of the ribozyme necessary to effect a therapeutic treatment is
XX lower than that of an antisense oligonucleotide and the specificity of
XX action is higher. (Updated on 25-MAR-2003 to correct PN field.)
XX
XX Sequence 27 BP; 4 A; 4 C; 8 G; 11 T; 0 U; 0 Other;
XX
XX Query Match 5.5%; Score 22; DB 2; Length 27;
XX Best Local Similarity 100.0%; Pred. No. 0.75;
XX Matches 22; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
XX
XX 17 ATTGAGTTGCTAGCTCTGG 38
XX 1 ATTGAGTTGCTAGCTCTGG 22
XX
XX RESULT 14
XX AAX54641/c
XX ID AAX54641 standard; DNA; 89 BP.
XX
XX AAX54641,
XX
XX 05-JUL-1999 (first entry)
XX
XX Human IL-5 antisense oligonucleotide fragment.
XX
XX Antisense oligonucleotide; multiple target; antisense treatment;
XX impaired respiration; inflammation; lung disease;
XX pulmonary vasoconstriction; inflammation; allergic rhinitis;
XX acute asthma; allergy; asthma; impeded respiration;
XX respiratory distress syndrome; pain; cystic fibrosis;
XX pulmonary hypertension; pulmonary vasoconstriction; emphysema;
XX chronic obstructive pulmonary disease; leukemia; lymphoma; carcinoma;
XX colon cancer; breast cancer; lung cancer; pancreatic cancer;
XX hepatocellular carcinoma; kidney cancer; melanoma; hepatic metastasis;
XX prostate cancer; ss.
XX
XX Synthetic.
XX
XX WO9913886-A1.
XX
XX 25-MAR-1999.
XX
XX 17-SEP-1998; 98WO-US019419.
XX
XX 17-SEP-1997; 97US-0059160P.
XX 09-JUN-1998; 98US-00093972.
XX
XX (UTEC-) UNIV EAST CAROLINA.
XX
XX NYce JW;
XX
XX WPI; 1999-229400/19.
XX
XX New antisense oligonucleotides used in treatment of, e.g. pulmonary
XX PT vasoconstriction.
XX
XX Disclosure; Page 49; 120pp; English.
XX
XX The specification describes antisense oligonucleotides (AAX52869-X55271)
XX directed against at least 2 mRNAs selected from target genes, coding and

CC non-coding regions of RNAs corresponding to target genes, gene initiation
CC codons, genomic flanking regions, intron-exon borders, the 5'-end, the 3'-
CC end and the junction between coding and non-coding regions and all
CC segments of RNAs encoding proteins associated with one or more diseases,
CC conditions or mixtures. The antisense oligonucleotides may be derived
CC from sequences AAX55272-74, these multiple target oligonucleotides
CC (specifically AAX55180-271) can be used for the antisense treatment of
CC diseases and conditions. Typical diseases and conditions are those
CC associated with impaired respiration and inflammation, including lung
CC diseases, pulmonary vasoconstriction, inflammation, allergic rhinitis,
CC acute asthma, allergies, asthma, impaired respiration, respiratory
CC distress syndrome, pain, cystic fibrosis, pulmonary hypertension,
CC pulmonary vasoconstriction, emphysema, chronic obstructive pulmonary
CC disease (COPD), and cancers such as leukemias, lymphomas, carcinomas e.g.
CC colon cancer, breast cancer, lung cancer, pancreatic cancer,
CC hepatocellular carcinoma, kidney cancer, melanoma, hepatic metastases, as
CC well as all types of cancers which may metastasize or have metastasized
CC to the lungs, including breast and prostate cancer
XX

SO Sequence 89 BP; 25 A; 20 C; 25 G; 18 T; 0 U; 1 Other;

Query Match 5.5%; Score 22; DB 2; Length 89;
Best Local Similarity 100.0%; Pred. No. 0.77; Mismatches 0; Gaps 0;
Matches 22; Conservative 0; Indels 0;

OY 17 ATTGAGTTGCTAGCTCTTGG 38
Db 61 ATTGAGTTGCTAGCTCTTGG 40

RESULT 15
AAA34088/C
ID AAA34088 standard; DNA; 89 BP.
AC AAA34088;
XX
XX 28-JUL-2000 (first entry)
XX
XX Human adenosine receptor related polynucleotide SEQ ID NO:1777.
DE
XX Human, adenosine receptor; low adenosine antisense oligonucleotide;
XX phosphorothioate; impaired respiration; inflammation; allergy;
XX allergic disease; bronchoconstriction; inhibitor; antiinflammatory;
XX antiallergic; antiasthmatic; cyostatic; analgesic; impaired airway;
XX lung disease; ischaemic condition; pulmonary vasoconstriction; asthma;
XX respiratory distress syndrome; pain; cystic fibrosis; emphysema;
XX pulmonary hypertension; chronic obstructive pulmonary disease; COPD;
XX cancer; leukaemia; lymphoma; carcinoma; metastasis; ss.
XX
XX Homo sapiens.
OS
XX WO200009525-A2.
XX
XX 24-FEB-2000.
XX
XX 03-AUG-1999; 99WO-US017712.
XX
XX 03-AUG-1998; 98US-0095212P.
XX
XX (UYEC-) UNIV EAST CAROLINA.
XX
XX NYCE JM;
XX
XX WPI; 2000-205971/18.
XX
XX New antisense oligonucleotides useful for treating e.g. pulmonary
XX vasoconstriction, inflammation, allergies, asthma, hypertension,
XX bronchitis, emphysema, respiratory distress syndrome, ischemia or
XX cancers.
XX
XX Disclosure; Page 486; 1343pp; English.
XX
XX The present invention describes a new composition comprising an antisense

CC oligonucleotide (ON) with low adenosine (up to 15%), which targets
CC nucleic acids involved in bronchoconstriction, allergies, and/or
CC inflammation. The ON can have antiinflammatory, antiallergic,
CC antiasthmatic, cyostatic and analgesic activities. The compositions are
CC useful for the treatment of diseases associated with inflammation,
CC impaired airways, including lung disease and diseases whose secondary
CC effects afflict the lungs of a subject. They can be used for treating
CC e.g. ischaemic conditions, pulmonary vasoconstriction, allergies, asthma,
CC impaired respiration, respiratory distress syndrome, pain, cystic
CC fibrosis, pulmonary hypertension, emphysema, chronic obstructive
CC pulmonary disease (COPD), and cancers such as leukemias, lymphomas,
CC carcinomas, and cancers which may metastasize to the lungs, including
CC breast and prostate cancer. The reduction of the adenosine content of the
CC ON reduces side effects. The A-containing ONs break down with the
CC release of deoxyadenosine which activates adenosine receptors causing
CC bronchoconstriction and inflammation. AAA32313 to AAA35312 represent the
CC nucleotide sequences given in the sequence listing from the present
CC invention, which correspond to SEQ ID NO:1 to 2815, and then the last 185
CC sequences are also called SEQ ID NO:1 to 185, but the sequences differ
CC from the previously named sequences. SEQ ID NO:11 to 1680 (AAA32323 to
CC AAA33992) are specifically claimed ONs from the present invention. N.B.
CC Sequences given in the disclosure of the present invention do not match
CC up with their corresponding SEQ ID NO: sequences given in the sequence
XX listing

SO Sequence 89 BP; 25 A; 20 C; 25 G; 18 T; 0 U; 1 Other;

Query Match 5.5%; Score 22; DB 3; Length 89;
Best Local Similarity 100.0%; Pred. No. 0.77; Mismatches 0; Gaps 0;
Matches 22; Conservative 0; Indels 0;

OY 17 ATTGAGTTGCTAGCTCTTGG 38
Db 61 ATTGAGTTGCTAGCTCTTGG 40

Search completed: August 8, 2005, 16:37:39
Job time : 269.467 secs

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Db 301 CAAAAAAGGTGTCAGAGAAAGATGAGAGTGCACAAAGTTCTAGACTACTGCA 360
QY 361 GTATTTCTTGTTGTAATTAACACCGAGTGAACCCGGAAGT 402
Db 361 GTATTTCTTGTTGTAATTAACACCGAGTGAACCCGGAAGT 402

RESULT 2

US-09-322-409-84/C
Sequence 84, Application US/09322409
Patent No. 6471957
GENERAL INFORMATION:
APPLICANT: Sim, Gek-Kee
APPLICANT: Yang, Shumin
APPLICANT: Drelitz, Matthew J.
APPLICANT: Wonderling, Ramani S.
TITLE OF INVENTION: CANINE AND FELINE IMMUNOREGULATORY PROTEINS, NUCLEIC
FILE REFERENCE: IM-2-C1
CURRENT APPLICATION NUMBER: US/09/322,409
CURRENT FILING DATE: 1999-05-28
EARLIER APPLICATION NUMBER: 60/087,306
EARLIER FILING DATE: 1998-05-29
NUMBER OF SEQ ID NOS: 154
SOFTWARE: PatentIn Ver. 2.0
SEQ ID NO 84
LENGTH: 402
TYPE: DNA
ORGANISM: Canis familiaris
US-09-322-409-84

Query Match 100.0%; Score 402; DB 4; Length 402;
Best Local Similarity 100.0%; Pred. No. 2,3e-193;

Matches 402; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 ATGAGAAATGCTTGAATTTGAGTTGCTAGCTCTGGGGCTGCTATGTTTCTGCTTT 60
Db 402 ATGAGAAATGCTTGAATTTGAGTTGCTAGCTCTGGGGCTGCTATGTTTCTGCTTT 343
QY 61 GCTGTAGAAAATCCCATGATAGACTGTGTCAGAGACCTTGACATGCTCTCCACTCAT 120
Db 342 GCTGTAGAAAATCCCATGATAGACTGTGTCAGAGACCTTGACATGCTCTCCACTCAT 283
QY 121 CGAATCTGCTGATAGAGGAGATGAGAACTGATGATTTCTTCTCTGTAATAATAAATAC 180
Db 282 CGAATCTGCTGATAGAGGAGATGAGAACTGATGATTTCTTCTCTGTAATAATAAATAC 223
QY 181 CAATCTGATTAAGAAGTTTTCAGGGTATAGACATTTGAAGAACCAAACTGCCAC 240
Db 222 CAATCTGATTAAGAAGTTTTCAGGGTATAGACATTTGAAGAACCAAACTGCCAC 163
QY 241 GGGAGGCTGTGATTAACATTAATCCAAACTGTTTAAATAAAGAACATAGAGCGC 300
Db 162 GGGAGGCTGTGATTAACATTAATCCAAACTGTTTAAATAAAGAACATAGAGCGC 103
QY 301 CAAAAAAGGTGTCAGAGAAAGATGAGAGTGCACAAAGTTCTTAGACTACTGCA 360
Db 102 CAAAAAAGGTGTCAGAGAAAGATGAGAGTGCACAAAGTTCTTAGACTACTGCA 43
QY 361 GTATTTCTTGTTGTAATTAACACCGAGTGAACCCGGAAGT 402
Db 42 GTATTTCTTGTTGTAATTAACACCGAGTGAACCCGGAAGT 1

RESULT 3

US-09-451-527-83
Sequence 83, Application US/09451527
Patent No. 6482403
GENERAL INFORMATION:
APPLICANT: Sim, Gek-Kee
APPLICANT: Yang, Shumin
APPLICANT: Drelitz, Matthew J.
APPLICANT: Wonderling, Ramani S.

TITLE OF INVENTION: CANINE AND FELINE IMMUNOREGULATORY PROTEINS, NUCLEIC
FILE REFERENCE: IM-2-C2
CURRENT APPLICATION NUMBER: US/09/451,527
CURRENT FILING DATE: 1999-12-01
EARLIER APPLICATION NUMBER: 09/322,409
EARLIER FILING DATE: 1999-05-28
EARLIER APPLICATION NUMBER: 60/087,306
EARLIER FILING DATE: 1998-05-29
NUMBER OF SEQ ID NOS: 174
SOFTWARE: PatentIn Ver. 2.0
SEQ ID NO 83
LENGTH: 402
TYPE: DNA
ORGANISM: Canis familiaris
US-09-451-527-83

Query Match 100.0%; Score 402; DB 4; Length 402;
Best Local Similarity 100.0%; Pred. No. 2,3e-193;

Matches 402; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 ATGAGAAATGCTTGAATTTGAGTTGCTAGCTCTGGGGCTGCTATGTTTCTGCTTT 60
Db 1 ATGAGAAATGCTTGAATTTGAGTTGCTAGCTCTGGGGCTGCTATGTTTCTGCTTT 60
QY 61 GCTGTAGAAAATCCCATGATAGACTGTGTCAGAGACCTTGACATGCTCTCCACTCAT 120
Db 61 GCTGTAGAAAATCCCATGATAGACTGTGTCAGAGACCTTGACATGCTCTCCACTCAT 120
QY 121 CGAATCTGCTGATAGAGGAGATGAGAACTGATGATTTCTTCTCTGTAATAATAAATAC 180
Db 121 CGAATCTGCTGATAGAGGAGATGAGAACTGATGATTTCTTCTCTGTAATAATAAATAC 180
QY 181 CAATCTGATTAAGAAGTTTTCAGGGTATAGACATTTGAAGAACCAAACTGCCAC 240
Db 181 CAATCTGATTAAGAAGTTTTCAGGGTATAGACATTTGAAGAACCAAACTGCCAC 240
QY 241 GGGAGGCTGTGATTAACATTAATCCAAACTGTTTAAATAAAGAACATAGAGCGC 300
Db 241 GGGAGGCTGTGATTAACATTAATCCAAACTGTTTAAATAAAGAACATAGAGCGC 300
QY 301 CAAAAAAGGTGTCAGAGAAAGATGAGAGTGCACAAAGTTCTTAGACTACTGCA 360
Db 301 CAAAAAAGGTGTCAGAGAAAGATGAGAGTGCACAAAGTTCTTAGACTACTGCA 360
QY 361 GTATTTCTTGTTGTAATTAACACCGAGTGAACCCGGAAGT 402
Db 361 GTATTTCTTGTTGTAATTAACACCGAGTGAACCCGGAAGT 402

RESULT 4

US-09-451-527-84/C
Sequence 84, Application US/09451527
Patent No. 6482403
GENERAL INFORMATION:
APPLICANT: Sim, Gek-Kee
APPLICANT: Yang, Shumin
APPLICANT: Drelitz, Matthew J.
APPLICANT: Wonderling, Ramani S.
TITLE OF INVENTION: CANINE AND FELINE IMMUNOREGULATORY PROTEINS, NUCLEIC
FILE REFERENCE: IM-2-C2
CURRENT APPLICATION NUMBER: US/09/451,527
CURRENT FILING DATE: 1999-12-01
EARLIER APPLICATION NUMBER: 09/322,409
EARLIER FILING DATE: 1999-05-28
EARLIER APPLICATION NUMBER: 60/087,306
EARLIER FILING DATE: 1998-05-29
NUMBER OF SEQ ID NOS: 174
SOFTWARE: PatentIn Ver. 2.0
SEQ ID NO 84
LENGTH: 402
TYPE: DNA

ORGANISM: Canis familiaris
US-09-451-527-84

Query Match 100.0%; Score 402; DB 4; Length 402;
Best Local Similarity 100.0%; Pred. No. 2,3e-193;
Matches 402; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 ATGGAATGCTTCTGAAATTTGAGTTTGTAGCTCTTGGGGCTGCTATGTTTCTGCTTT 60
DB 402 ATGGAATGCTTCTGAAATTTGAGTTTGTAGCTCTTGGGGCTGCTATGTTTCTGCTTT 343
QY 61 GCTGTAGAAAATCCCATTAATAGACTGGTGGCAGAGACCTTGACCTGCTCCACTAT 120
DB 342 GCTGTAGAAAATCCCATTAATAGACTGGTGGCAGAGACCTTGACCTGCTCCACTAT 283
QY 121 CGAAGCTGCTGATAGGCGATGGGAACTGATGATCTTCTACCTCGAAATTAATAATAC 180
DB 282 CGAAGCTGCTGATAGGCGATGGGAACTGATGATCTTCTACCTCGAAATTAATAATAC 223
QY 181 CAAGTGTGATTAAGAAGTTTTCAGGGTATAGACATTTGAAGAACCAATGCCAC 240
DB 222 CAAGTGTGATTAAGAAGTTTTCAGGGTATAGACATTTGAAGAACCAATGCCAC 163
QY 241 GGGAGGCTGTGATAACTATTCCTTCTTAATTAAGAACAATAGAGCGC 300
DB 162 GGGAGGCTGTGATAACTATTCCTTCTTAATTAAGAACAATAGAGCGC 103
QY 301 CAAAAAAGGTGCGAGGAAAGATGAGAGCAAAAGTCTGACTACTGCA 360
DB 102 CAAAAAAGGTGCGAGGAAAGATGAGAGCAAAAGTCTGACTACTGCA 43
QY 361 GTATTTCTGTGTATTAACACCGAGTGCACCGGAAAGT 402
DB 42 GTATTTCTGTGTATTAACACCGAGTGCACCGGAAAGT 1

RESULT 5

US-09-322-409-80
Sequence 80, Application US/09322409
Patent No. 6471957

GENERAL INFORMATION:
APPLICANT: Sim, Gek-Kee
APPLICANT: Yang, Shumin
APPLICANT: Drelitz, Matthew J.
APPLICANT: Wonderling, Ramani S.
TITLE OF INVENTION: CANINE AND FELINE IMMUNOREGULATORY PROTEINS, NUCLEIC
FILE REFERENCE: IM-2-C1
CURRENT FILING DATE: 1999-05-28
EARLIER FILING DATE: 1998-05-29
EARLIER FILING DATE: 1998-05-29
NUMBER OF SEQ ID NOS: 154
SOFTWARE: PatentIn Ver. 2.0
SEQ ID NO 80
LENGTH: 610
TYPE: DNA
ORGANISM: Canis familiaris
FEATURE:
NAME/KEY: CDS
LOCATION: (29) ..(430)
US-09-322-409-80

Query Match 100.0%; Score 402; DB 4; Length 610;
Best Local Similarity 100.0%; Pred. No. 2,3e-193;
Matches 402; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 ATGGAATGCTTCTGAAATTTGAGTTTGTAGCTCTTGGGGCTGCTATGTTTCTGCTTT 60
DB 29 ATGGAATGCTTCTGAAATTTGAGTTTGTAGCTCTTGGGGCTGCTATGTTTCTGCTTT 88
QY 61 GCTGTAGAAAATCCCATTAATAGACTGGTGGCAGAGACCTTGACCTGCTCCACTAT 120

DB 89 GCTGTAGAAAATCCCATTAATAGACTGGTGGCAGAGACCTTGACCTGCTCCACTAT 148
QY 121 CGAAGCTGCTGATAGGCGATGGGAACTGATGATTTCTACTCTGAAATTAATAATAC 180
DB 149 CGAAGCTGCTGATAGGCGATGGGAACTGATGATTTCTACTCTGAAATTAATAATAC 208
QY 181 CAAGTGTGATTAAGAAGTTTTCAGGGTATAGACATTTGAAGAACCAATGCCAC 240
DB 209 CAAGTGTGATTAAGAAGTTTTCAGGGTATAGACATTTGAAGAACCAATGCCAC 268
QY 241 GGGAGGCTGTGATTAACCTATTCCTTCTTAATTAAGAACAATAGAGCGC 300
DB 269 GGGAGGCTGTGATTAACCTATTCCTTCTTAATTAAGAACAATAGAGCGC 328
QY 301 CAAAAAAGGTGCGAGGAAAGATGAGAGTGAACAAAGTCTGACTACTGCA 360
DB 329 CAAAAAAGGTGCGAGGAAAGATGAGAGTGAACAAAGTCTGACTACTGCA 388
QY 361 GTATTTCTGTGTATTAACACCGAGTGCACCGGAAAGT 402
DB 389 GTATTTCTGTGTATTAACACCGAGTGCACCGGAAAGT 430

RESULT 6

US-09-322-409-82/c
Sequence 82, Application US/09322409
Patent No. 6471957

GENERAL INFORMATION:
APPLICANT: Sim, Gek-Kee
APPLICANT: Yang, Shumin
APPLICANT: Drelitz, Matthew J.
APPLICANT: Wonderling, Ramani S.
TITLE OF INVENTION: CANINE AND FELINE IMMUNOREGULATORY PROTEINS, NUCLEIC
FILE REFERENCE: IM-2-C1
CURRENT FILING DATE: 1999-05-28
EARLIER FILING DATE: 1998-05-29
EARLIER FILING DATE: 1998-05-29
NUMBER OF SEQ ID NOS: 154
SOFTWARE: PatentIn Ver. 2.0
SEQ ID NO 82
LENGTH: 610
TYPE: DNA
ORGANISM: Canis familiaris
US-09-322-409-82

Query Match 100.0%; Score 402; DB 4; Length 610;
Best Local Similarity 100.0%; Pred. No. 2,3e-193;
Matches 402; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 ATGGAATGCTTCTGAAATTTGAGTTTGTAGCTCTTGGGGCTGCTATGTTTCTGCTTT 60
DB 582 ATGGAATGCTTCTGAAATTTGAGTTTGTAGCTCTTGGGGCTGCTATGTTTCTGCTTT 523
QY 61 GCTGTAGAAAATCCCATTAATAGACTGGTGGCAGAGACCTTGACCTGCTCCACTAT 120
DB 522 GCTGTAGAAAATCCCATTAATAGACTGGTGGCAGAGACCTTGACCTGCTCCACTAT 463
QY 121 CGAAGCTGCTGATAGGCGATGGGAACTGATGATTTCTACTCTGAAATTAATAATAC 180
DB 462 CGAAGCTGCTGATAGGCGATGGGAACTGATGATTTCTACTCTGAAATTAATAATAC 403
QY 181 CAAGTGTGATTAAGAAGTTTTCAGGGTATAGACATTTGAAGAACCAATGCCAC 240
DB 402 CAAGTGTGATTAAGAAGTTTTCAGGGTATAGACATTTGAAGAACCAATGCCAC 343
QY 241 GGGAGGCTGTGATTAACCTATTCCTTCTTAATTAAGAACAATAGAGCGC 300
DB 342 GGGAGGCTGTGATTAACCTATTCCTTCTTAATTAAGAACAATAGAGCGC 283
QY 301 CAAAAAAGGTGCGAGGAAAGATGAGAGTGAACAAAGTCTGACTACTGCA 360

Db 282 CAAAAAAGGTGCGAGGAGAAAGATGAGAGTGCACAAAGTTCTAGACTTACCTGCAA 223
QY 361 GTATTCTTGCTGTATTAATTAACACCGAGTGACACCGGAAAGT 402
Db 222 GTATTCTTGCTGTATTAATTAACACCGAGTGACACCGGAAAGT 181

RESULT 7
US-09-451-527-80
Sequence 80, Application US/09451527
Patent No. 6482403

GENERAL INFORMATION:
APPLICANT: Sim, Gek-kee
APPLICANT: Yang, Shumin
APPLICANT: Dreitz, Matthew J.
APPLICANT: Wonderling, Ramani S.
TITLE OF INVENTION: CANINE AND FELINE IMMUNOREGULATORY PROTEINS, NUCLEIC
FILE REFERENCE: IM-2-C2
CURRENT APPLICATION NUMBER: US/09/451,527
EARLIER FILING DATE: 1999-12-01
EARLIER APPLICATION NUMBER: 09/322,409
EARLIER FILING DATE: 1999-05-28
EARLIER APPLICATION NUMBER: 60/087,306
EARLIER FILING DATE: 1998-05-29
NUMBER OF SEQ ID NOS: 174
SOFTWARE: PatentIn Ver. 2.0
SEQ ID NO 80
LENGTH: 610

TYPE: DNA
ORGANISM: Canis familiaris
FEATURE:
NAME/KEY: CDS
LOCATION: (29)..(430)
US-09-451-527-80

Query Match 100.0%; Score 402; DB 4; Length 610;
Best Local Similarity 100.0%; Pred. No. 2.3e-193;
Matches 402; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 ATGAGATGCTTCTGAATTTGAGTTTCTAGCTCTTGGGGTGGCTTATGTTTCTGCTTT 60
Db 29 ATGAGATGCTTCTGAATTTGAGTTTCTAGCTCTTGGGGTGGCTTATGTTTCTGCTTT 88
QY 61 GCTGTAGAAAATCCCATGATAGACTGATGCGAGACCTTGAACAGCTCTCCACTCAT 120
Db 89 GCTGTAGAAAATCCCATGATAGACTGATGCGAGACCTTGAACAGCTCTCCACTCAT 148
QY 121 CGAAGCTGCTGATAGGCGATGGAGACCTGATGATTCCTTACTCTCTGAAAATTAATCAC 180
Db 149 CGAAGCTGCTGATAGGCGATGGAGACCTGATGATTCCTTACTCTCTGAAAATTAATCAC 208
QY 181 CAACTGTGCATTAAGAAGTTTTCAGGGTATAGACATTTGAAGAACCAACTGCCAC 240
Db 209 CAACTGTGCATTAAGAAGTTTTCAGGGTATAGACATTTGAAGAACCAACTGCCAC 268
QY 241 GGGAGGCTGTGATTAACCTATTCCTTAAATTAAGAACAACATAGAGCGC 300
Db 269 GGGAGGCTGTGATTAACCTATTCCTTAAATTAAGAACAACATAGAGCGC 328
QY 301 CAAAAAAGGTGTGCGAGGAGAAAGATGAGAGTGAACAAAGTTCTAGACTTACCTCAA 360
Db 329 CAAAAAAGGTGTGCGAGGAGAAAGATGAGAGTGAACAAAGTTCTAGACTTACCTCAA 388
QY 361 GTATTCTTGCTGTATTAATTAACACCGAGTGACACCGGAAAGT 402
Db 389 GTATTCTTGCTGTATTAATTAACACCGAGTGACACCGGAAAGT 430

RESULT 8
US-09-451-527-82/C
Sequence 82, Application US/09451527
Patent No. 6482403

GENERAL INFORMATION:
APPLICANT: Sim, Gek-kee
APPLICANT: Yang, Shumin
APPLICANT: Dreitz, Matthew J.
APPLICANT: Wonderling, Ramani S.
TITLE OF INVENTION: CANINE AND FELINE IMMUNOREGULATORY PROTEINS, NUCLEIC
FILE REFERENCE: IM-2-C2
CURRENT APPLICATION NUMBER: US/09/451,527
EARLIER FILING DATE: 1999-12-01
EARLIER APPLICATION NUMBER: 09/322,409
EARLIER FILING DATE: 1999-05-28
EARLIER APPLICATION NUMBER: 60/087,306
EARLIER FILING DATE: 1998-05-29
NUMBER OF SEQ ID NOS: 174
SOFTWARE: PatentIn Ver. 2.0
SEQ ID NO 82
LENGTH: 610
TYPE: DNA
ORGANISM: Canis familiaris
US-09-451-527-82

Query Match 100.0%; Score 402; DB 4; Length 610;
Best Local Similarity 100.0%; Pred. No. 2.3e-193;
Matches 402; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 ATGAGATGCTTCTGAATTTGAGTTTCTAGCTCTTGGGGTGGCTTATGTTTCTGCTTT 60
Db 582 ATGAGATGCTTCTGAATTTGAGTTTCTAGCTCTTGGGGTGGCTTATGTTTCTGCTTT 523
QY 61 GCTGTAGAAAATCCCATGATAGACTGATGCGAGACCTTGAACAGCTCTCCACTCAT 120
Db 522 GCTGTAGAAAATCCCATGATAGACTGATGCGAGACCTTGAACAGCTCTCCACTCAT 463
QY 121 CGAAGCTGCTGATAGGCGATGGAGACCTGATGATTCCTTACTCTCTGAAAATTAATCAC 180
Db 462 CGAAGCTGCTGATAGGCGATGGAGACCTGATGATTCCTTACTCTCTGAAAATTAATCAC 403
QY 181 CAACTGTGCATTAAGAAGTTTTCAGGGTATAGACATTTGAAGAACCAACTGCCAC 240
Db 402 CAACTGTGCATTAAGAAGTTTTCAGGGTATAGACATTTGAAGAACCAACTGCCAC 343
QY 241 GGGAGGCTGTGATTAACCTATTCCTTAAATTAAGAACAACATAGAGCGC 300
Db 342 GGGAGGCTGTGATTAACCTATTCCTTAAATTAAGAACAACATAGAGCGC 283
QY 301 CAAAAAAGGTGTGCGAGGAGAAAGATGAGAGTGAACAAAGTTCTAGACTTACCTCAA 360
Db 282 CAAAAAAGGTGTGCGAGGAGAAAGATGAGAGTGAACAAAGTTCTAGACTTACCTCAA 223
QY 361 GTATTCTTGCTGTATTAATTAACACCGAGTGACACCGGAAAGT 402
Db 222 GTATTCTTGCTGTATTAATTAACACCGAGTGACACCGGAAAGT 181

RESULT 9
US-09-371-615A-1
Sequence 1, Application US/09371615A
Patent No. 6537781
GENERAL INFORMATION:
APPLICANT: IDEXX LABORATORIES
TITLE OF INVENTION: METHODS AND COMPOSITIONS CONCERNING
FILE REFERENCE: 03604001700US00
CURRENT APPLICATION NUMBER: US/09/371,615A
NUMBER OF SEQ ID NOS: 8
SOFTWARE: FastSeq for Windows Version 3.0
SEQ ID NO 1
LENGTH: 405
TYPE: DNA
ORGANISM: Canis familiaris
US-09-371-615A-1

Query Match 97.8%; Score 393; DB 4; Length 405;
Best Local Similarity 100.0%; Pred. No. 8.2e-189;
Matches 393; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

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DB 1 ATGGAATGCTTCTGAAATTTGAGTTTGTAGCTCTTGGGGCTCCATGTTTCTGCTTT 60
QY 61 GCTGTAGAAATCCCATGATAGACTGGTGACAGACCTTGACACTGCTCCACTCAT 120
DB 61 GCTGTAGAAATCCCATGATAGACTGGTGACAGACCTTGACACTGCTCCACTCAT 120
QY 121 CGAAGTGGCTGATAGGCGATGGAACCTGATGATCTTCTACTCTGAAATTAATTAAC 180
DB 121 CGAAGTGGCTGATAGGCGATGGAACCTGATGATCTTCTACTCTGAAATTAATTAAC 180
QY 181 CAAGTGTGATTAAGAAAGTTTTCAGGGTATAGACATTTGAAGAACCAAACTGCCAC 240
DB 181 CAAGTGTGATTAAGAAAGTTTTCAGGGTATAGACATTTGAAGAACCAAACTGCCAC 240
QY 241 GGGGAGCTGTGATTAACCTATTCCTCAAACTTGTCTTTAATAAAGAACATAGAGGC 300
DB 241 GGGGAGCTGTGATTAACCTATTCCTCAAACTTGTCTTTAATAAAGAACATAGAGGC 300
QY 301 CAAAAAAGAGGTGACAGAGAAAGATGAGATGACAAAGTTCTAGACTGCTGCA 360
DB 301 CAAAAAAGAGGTGACAGAGAAAGATGAGATGACAAAGTTCTAGACTGCTGCA 360
QY 361 GTATTTCTTGTGTATTAATTAACCCAGATGACA 393
DB 361 GTATTTCTTGTGTATTAATTAACCCAGATGACA 393
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RESULT 10

US-09-322-409-85
; Sequence 85, Application US/09322409
; Patent No. 6471957
; GENERAL INFORMATION:
; APPLICANT: Sim, Gek-Kea
; APPLICANT: Yang, Shumin
; APPLICANT: Drelitz, Matthew J.
; APPLICANT: Wonderling, Ramani S.
; TITLE OF INVENTION: CANINE AND FELINE IMMUNOREGULATORY PROTEINS, NUCLEIC
; FILE REFERENCE: IM-2-C1
; CURRENT APPLICATION NUMBER: US/09/322,409
; EARLIER FILING DATE: 1999-05-28
; EARLIER APPLICATION NUMBER: 60/087,306
; EARLIER FILING DATE: 1998-05-29
; NUMBER OF SEQ ID NOS: 154
; SOFTWARE: PatentIn Ver. 2.0
; SEQ ID NO 85
; LENGTH: 345
; TYPE: DNA
; ORGANISM: Canis familiaris
; FEATURE:
; NAME/KEY: CDS
; LOCATION: (1) .. (345)
US-09-322-409-85

Query Match 85.8%; Score 345; DB 4; Length 345;
Best Local Similarity 100.0%; Pred. No. 1.5e-164;
Matches 345; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

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DB 1 TTGTGTAGAAATCCCATGATAGACTGGTGACAGACCTTGACACTGCTCCACT 60
QY 118 CATGAAGTGGCTGATAGGCGATGGAACCTGATGATCTTCTACTCTGAAATTAAT 177
DB 61 CATGAAGTGGCTGATAGGCGATGGAACCTGATGATCTTCTACTCTGAAATTAAT 120
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QY 178 CACCACTGTGATTAAGAAAGTTTTCAGGGTATAGACATTTGAAGAACCAAACTGCC 237
DB 121 CACCACTGTGATTAAGAAAGTTTTCAGGGTATAGACATTTGAAGAACCAAACTGCC 180
QY 238 CACGGGAGGCTGTGATTAACCTATTCCTCAAACTTGTCTTTAATAAAGAACATAGAG 297
DB 181 CACGGGAGGCTGTGATTAACCTATTCCTCAAACTTGTCTTTAATAAAGAACATAGAG 240
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QY 298 CGCCAAAAAAGAGGTGACAGAGAAAGATGAGAGTGAACAAAGTTCTAGACTACTG 357
DB 241 CGCCAAAAAAGAGGTGACAGAGAAAGATGAGAGTGAACAAAGTTCTAGACTACTG 300
QY 358 CAAGTATTTCTTGTGTATTAATTAACCCAGATGACACCGGAAAGT 402
DB 301 CAAGTATTTCTTGTGTATTAATTAACCCAGATGACACCGGAAAGT 345
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RESULT 11

US-09-322-409-87/c
; Sequence 87, Application US/09322409
; Patent No. 6471957
; GENERAL INFORMATION:
; APPLICANT: Sim, Gek-Kea
; APPLICANT: Yang, Shumin
; APPLICANT: Drelitz, Matthew J.
; APPLICANT: Wonderling, Ramani S.
; TITLE OF INVENTION: CANINE AND FELINE IMMUNOREGULATORY PROTEINS, NUCLEIC
; FILE REFERENCE: IM-2-C1
; CURRENT APPLICATION NUMBER: US/09/322,409
; EARLIER FILING DATE: 1999-05-28
; EARLIER APPLICATION NUMBER: 60/087,306
; EARLIER FILING DATE: 1998-05-29
; NUMBER OF SEQ ID NOS: 154
; SOFTWARE: PatentIn Ver. 2.0
; SEQ ID NO 87
; LENGTH: 345
; TYPE: DNA
; ORGANISM: Canis familiaris
US-09-322-409-87

Query Match 85.8%; Score 345; DB 4; Length 345;
Best Local Similarity 100.0%; Pred. No. 1.5e-164;
Matches 345; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

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QY 118 CATGAAGTGGCTGATAGGCGATGGAACCTGATGATCTTCTACTCTGAAATTAAT 177
DB 285 CATGAAGTGGCTGATAGGCGATGGAACCTGATGATCTTCTACTCTGAAATTAAT 226
QY 178 CACCACTGTGATTAAGAAAGTTTTCAGGGTATAGACATTTGAAGAACCAAACTGCC 237
DB 225 CACCACTGTGATTAAGAAAGTTTTCAGGGTATAGACATTTGAAGAACCAAACTGCC 166
QY 238 CACGGGAGGCTGTGATTAACCTATTCCTCAAACTTGTCTTTAATAAAGAACATAGAG 297
DB 165 CACGGGAGGCTGTGATTAACCTATTCCTCAAACTTGTCTTTAATAAAGAACATAGAG 106
QY 298 CGCCAAAAAAGAGGTGACAGAGAAAGATGAGAGTGAACAAAGTTCTAGACTACTG 357
DB 105 CGCCAAAAAAGAGGTGACAGAGAAAGATGAGAGTGAACAAAGTTCTAGACTACTG 46
QY 358 CAAGTATTTCTTGTGTATTAATTAACCCAGATGACACCGGAAAGT 402
DB 45 CAAGTATTTCTTGTGTATTAATTAACCCAGATGACACCGGAAAGT 1
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RESULT 12
US-09-451-527-85
; Sequence 85, Application US/09451527


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? TELECOMMUNICATION INFORMATION
? TELEPHONE: (213) 489-1600
? TELEFAX: (213) 955-0440
? TELLEX: 67-3510
? INFORMATION FOR SEQ ID NO: 41:
? SEQUENCE CHARACTERISTICS:
? LENGTH: 27
? TYPE: nucleic acid
? STRANDEDNESS: single
? TOPOLOGY: linear
US-08-434-503-41

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Query Match	5.5%	Score 22	DB 1	Length 27
Best Local Similarity	54.5%	Pred. No. 0.32		
Matches 12	Conservative 10	Mismatches 0	Indels 0	Gaps 0

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QY      17 ATTGAGTTGCTAGCTCTGG 38
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Db      1 AATTGAGTTTGCATGCTCTGG 22

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RESULT 15
 US-08-466-852-2/c
 Sequence 2, Application US/08466852
 Patent No. 5681936
 GENERAL INFORMATION:
 APPLICANT:
 TITLE OF INVENTION: A SINGLE STEP PURIFICATION OF
 TITLE OF INVENTION: RECOMBINANT HUMAN INTERLEUKIN-5
 NUMBER OF SEQUENCES: 4
 CORRESPONDENCE ADDRESS:
 ADDRESSEE: Merck & Co., Inc.
 STREET: 126 East Lincoln Avenue
 City: Rahway
 STATE: New Jersey
 COUNTRY: USA
 ZIP: 07065-0907
 COMPUTER READABLE FORM:
 MEDIUM TYPE: Diskette, 3.5 in, 1.4Kb
 COMPUTER: Apple Macintosh
 OPERATING SYSTEM: System 7.0.1
 SOFTWARE: Microsoft word 5.1
 CURRENT APPLICATION DATA:
 APPLICATION NUMBER: US/08/466,852
 FILING DATE:
 CLASSIFICATION: 424
 ATTORNEY/AGENT INFORMATION:
 NAME: Panter, Curtis C.
 REGISTRATION NUMBER: 33,752
 REFERENCE/DOCKET NUMBER: 191511A
 TELECOMMUNICATION INFORMATION:
 TELEPHONE: (908)594-4720
 TELEFAX: (908)594-4720
 INFORMATION FOR SEQ. ID NO: 2:
 SEQUENCE CHARACTERISTICS:
 LENGTH: 47 bases
 TYPE: nucleic acid
 STRANDEDNESS: single
 TOPOLOGY: linear
 MOLECULE TYPE: DNA (genomic)
 US-08-466-852-2

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Query Match      5.5%; Score 22; DB 1; Length 47;
Best Local Similarity 100.0%; Pred. No. 0.33;
Matches 22; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

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Job time : 82.8667 secs

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GenCore version 5.1.6
Copyright (c) 1993 - 2005 CompuGen Ltd.

OM nucleic - nucleic search, using sw model

Run on: August 8, 2005, 08:46:14 ; Search time 789.2 Seconds
(without alignments)
6459.370 Million cell updates/sec

Title: US-10-787-382-7

Perfect score: 402
Sequence: 1 atgagaatgcttctgattc.....ccgagtgacacgcgaagt 402

Scoring table: OLIGO_NUC
Gapop 60.0 , Gapext 60.0

Searched: 21947045 seqs, 634046511 residues

Word size : 0

Total number of hits satisfying chosen parameters: 43894090

Minimum DB seq length: 0

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Post-processing: Listing first 45 summaries

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- 12: /cgn2_6/ptodata/1/pna/US10_NEW_COMB.seq:*
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- 19: /cgn2_6/ptodata/1/pna/US11_NEW_COMB.seq:*
- 20: /cgn2_6/ptodata/1/pna/US11_NEW_COMB.seq:*
- 21: /cgn2_6/ptodata/1/pna/US11_NEW_COMB.seq:*
- 22: /cgn2_6/ptodata/1/pna/US11_NEW_COMB.seq:*
- 23: /cgn2_6/ptodata/1/pna/US60_NEW_COMB.seq:*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

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1	402	100.0	402	11	US-10-916-286A-83
2	402	100.0	402	11	US-10-916-286A-84
3	402	100.0	610	11	PCT-US05-00517-3424
4	402	100.0	610	11	US-10-916-286A-80
5	402	100.0	610	11	US-10-916-286A-82
6	345	88.8	345	11	US-10-916-286A-85
7	345	88.8	345	11	US-10-916-286A-87
8	40	10.0	405	1	PCT-US05-00517-150
9	22	5.5	405	23	US-60-680-544-25813
10	22	5.5	405	23	US-60-680-473-25813

	11	22	5.5	459	11	US-10-880-101A-85	Sequence 85, Appl
	12	22	5.5	816 <td>23</td> <td>US-10-880-101A-87</td> <td>Sequence 87, Appl</td>	23	US-10-880-101A-87	Sequence 87, Appl
	13	22	5.5	816 <td>23</td> <td>US-60-659-397-502</td> <td>Sequence 502, Appl</td>	23	US-60-659-397-502	Sequence 502, Appl
	14	22	5.5	816 <td>23</td> <td>US-60-675-841-243</td> <td>Sequence 243, Appl</td>	23	US-60-675-841-243	Sequence 243, Appl
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	22	22	5.5	14079 <td>23</td> <td>US-60-659-397-12092</td> <td>Sequence 12092, A</td>	23	US-60-659-397-12092	Sequence 12092, A
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	28	21	5.2	864 <td>12</td> <td>US-10-939-107-14</td> <td>Sequence 14, Appl</td>	12	US-10-939-107-14	Sequence 14, Appl
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	30	20	5.0	569 <td>9</td> <td>US-10-301-480C-578938</td> <td>Sequence 578938</td>	9	US-10-301-480C-578938	Sequence 578938
	31	20	5.0	569 <td>15</td> <td>US-10-301-480A-578937</td> <td>Sequence 578937</td>	15	US-10-301-480A-578937	Sequence 578937
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	36	20	5.0	569 <td>16</td> <td>US-10-301-480-816278</td> <td>Sequence 816278</td>	16	US-10-301-480-816278	Sequence 816278
	37	20	5.0	569 <td>17</td> <td>US-10-301-480B-578937</td> <td>Sequence 578937</td>	17	US-10-301-480B-578937	Sequence 578937
	38	20	5.0	569 <td>17</td> <td>US-10-301-480B-578938</td> <td>Sequence 578938</td>	17	US-10-301-480B-578938	Sequence 578938
	39	20	5.0	582 <td>7</td> <td>US-09-925-065A-102502</td> <td>Sequence 102502</td>	7	US-09-925-065A-102502	Sequence 102502
	40	20	5.0	582 <td>7</td> <td>US-09-925-065A-102503</td> <td>Sequence 102503</td>	7	US-09-925-065A-102503	Sequence 102503
	41	20	5.0	586 <td>9</td> <td>US-10-301-480C-434229</td> <td>Sequence 434229</td>	9	US-10-301-480C-434229	Sequence 434229
	42	20	5.0	586 <td>15</td> <td>US-10-301-480A-434229</td> <td>Sequence 434229</td>	15	US-10-301-480A-434229	Sequence 434229
	43	20	5.0	586 <td>16</td> <td>US-10-301-480-58160</td> <td>Sequence 58160, A</td>	16	US-10-301-480-58160	Sequence 58160, A
	44	20	5.0	586 <td>16</td> <td>US-10-301-480-671569</td> <td>Sequence 671569</td>	16	US-10-301-480-671569	Sequence 671569
	45	20	5.0	586 <td>17</td> <td>US-10-301-480B-434229</td> <td>Sequence 434229</td>	17	US-10-301-480B-434229	Sequence 434229

ALIGNMENTS

RESULT 1
US-10-916-286A-83
; Sequence 83, Application US/10916286A
; GENERAL INFORMATION:
; APPLICANT: Sim, Gek-Kee
; TITLE OF INVENTION: CANINE IL-4 IMMUNOREGULATORY PROTEINS AND USES THEREOF
; FILE REFERENCE: IM-2-C1-R
; CURRENT FILING DATE: 2004-08-11
; PRIOR APPLICATION NUMBER: US/10/916,286A
; PRIOR FILING DATE: 1999-05-28
; PRIOR APPLICATION NUMBER: 60/087,306
; NUMBER OF SEQ ID NOS: 154
; SOFTWARE: PatentIn Ver. 2.0
; SEQ ID NO 83
; LENGTH: 402
; TYPE: DNA
; ORGANISM: Canis familiaris
US-10-916-286A-83

Query Match
Best Local Similarity 100.0%; Score 402; DB 11; Length 402;
Matches 402; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 ATGAGAAATGCTTGAATTTGAGTTGCTAGCTCTTGAGGCTGCTATGTTTGCCTTT 60
DB 1 ATGAGAAATGCTTGAATTTGAGTTGCTAGCTCTTGAGGCTGCTATGTTTGCCTTT 60
QY 61 GCTGTAGAAATCCCATGATGAGTGTGCGAGAGACTTGACACTGCTCTCCACTCAT 120
DB 61 GCTGTAGAAATCCCATGATGAGTGTGCGAGAGACTTGACACTGCTCTCCACTCAT 120

```
QY 121 CGAAGTGGCTGATAGGCGATGGAACTGATGATTCCTACTCTGAAATATAATAC 180
D 121 CGAAGTGGCTGATAGGCGATGGAACTGATGATTCCTACTCTGAAATATAATAC 180
QY 181 CAACTGTCATTAAAGAGTTTTCAGGGTATACACATTGAAGAACCAACGCCAC 240
D 181 CAACTGTCATTAAAGAGTTTTCAGGGTATACACATTGAAGAACCAACGCCAC 240
QY 241 GGGAGGCTGTGATTAACATATTCCTTAATTAAGAAACATAGAGCGC 300
D 241 GGGAGGCTGTGATTAACATATTCCTTAATTAAGAAACATAGAGCGC 300
QY 301 CAAAAAAGGTGTGACAGGAAAGATGAGAGTGAACAAAGTTCTAGACTACGCAA 360
D 301 CAAAAAAGGTGTGACAGGAAAGATGAGAGTGAACAAAGTTCTAGACTACGCAA 360
QY 361 GTATTTCTGTGATTAACACCGAGTGAACCGGAAAGT 402
D 361 GTATTTCTGTGATTAACACCGAGTGAACCGGAAAGT 402
```

RESULT 2

```
US-10-916-286A-84/C
; Sequence 84, Application US/10916286A
; GENERAL INFORMATION:
; APPLICANT: Sim, Gek-Kee
; APPLICANT: Dreitz, Matthew J.
; TITLE OF INVENTION: CANINE IL-4 IMMUNOREGULATORY PROTEINS AND USES THEREOF
; FILE REFERENCE: IM-2-C1-R
; CURRENT APPLICATION NUMBER: US/10/916,286A
; CURRENT FILING DATE: 2004-08-11
; PRIOR APPLICATION NUMBER: 09/322,409
; PRIOR FILING DATE: 1999-05-28
; PRIOR APPLICATION NUMBER: 60/087,306
; PRIOR FILING DATE: 1998-05-29
; NUMBER OF SEQ ID NOS: 154
; SOFTWARE: PatentIn Ver. 2.0
; SEQ ID NO 84
; LENGTH: 402
; TYPE: DNA
; ORGANISM: Canis familiaris
US-10-916-286A-84
```

```
Query Match 100.0%; Score 402; DB 1; Length 402;
Best Local Similarity 100.0%; Pred. No. 1.1e-194;
Matches 402; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
```

```
QY 1 ATGAGATGCTTCTGAATTTGATTTGCTAGCTCTTGGGGCTGCTATGTTTCTGCTTT 60
D 402 ATGAGATGCTTCTGAATTTGATTTGCTAGCTCTTGGGGCTGCTATGTTTCTGCTTT 343
QY 61 GCTGTAGAAAATCCCATGAATAGACTGGTGCAGAGACCTTGAACAGCTCTCCACTCAT 120
D 342 GCTGTAGAAAATCCCATGAATAGACTGGTGCAGAGACCTTGAACAGCTCTCTCCACTCAT 283
QY 121 CGAAGTGGCTGATAGGCGATGGAACTGATGATTCCTACTCTGAAATATAATAC 180
D 282 CGAAGTGGCTGATAGGCGATGGAACTGATGATTCCTACTCTGAAATATAATAC 223
QY 181 CAACTGTCATTAAAGAGTTTTCAGGGTATACACATTGAAGAACCAACGCCAC 240
D 222 CAACTGTCATTAAAGAGTTTTCAGGGTATACACATTGAAGAACCAACGCCAC 163
QY 241 GGGAGGCTGTGATTAACATATTCCTTAATTAAGAAACATAGAGCGC 300
D 162 GGGAGGCTGTGATTAACATATTCCTTAATTAAGAAACATAGAGCGC 103
QY 301 CAAAAAAGGTGTGACAGGAAAGATGAGAGTGAACAAAGTTCTAGACTACGCAA 360
D 102 CAAAAAAGGTGTGACAGGAAAGATGAGAGTGAACAAAGTTCTAGACTACGCAA 43
QY 361 GTATTTCTGTGATTAACACCGAGTGAACCGGAAAGT 402
```

```
D 42 GTATTTCTGTGATTAACACCGAGTGAACCGGAAAGT 1
```

RESULT 3

```
PCT-US05-00517-3424
; Sequence 3424, Application PC/TUS0500517
; GENERAL INFORMATION:
; APPLICANT: THE OHIO STATE UNIVERSITY
; TITLE OF INVENTION: METHODS OF USING DATABASES TO CREATE GENE-EXPRESSION MICROARRAYS,
; TITLE OF INVENTION: MICROARRAYS CREATED THEREBY, AND USES OF THE MICROARRAYS
; FILE REFERENCE: 18525-04130
; CURRENT APPLICATION NUMBER: PCT/US05/00517
; CURRENT FILING DATE: 2005-01-07
; PRIOR APPLICATION NUMBER: 60/535,111
; PRIOR FILING DATE: 2004-01-08
; NUMBER OF SEQ ID NOS: 3859
; SOFTWARE: PatentIn version 3.3
; SEQ ID NO 3424
; LENGTH: 610
; TYPE: DNA
; ORGANISM: Canis familiaris
PCT-US05-00517-3424
```

```
Query Match 100.0%; Score 402; DB 1; Length 610;
Best Local Similarity 100.0%; Pred. No. 1.1e-194;
Matches 402; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
```

```
QY 1 ATGAGATGCTTCTGAATTTGATTTGCTAGCTCTTGGGGCTGCTATGTTTCTGCTTT 60
D 29 ATGAGATGCTTCTGAATTTGATTTGCTAGCTCTTGGGGCTGCTATGTTTCTGCTTT 88
QY 61 GCTGTAGAAAATCCCATGAATAGACTGGTGCAGAGACCTTGAACAGCTCTCCACTCAT 120
D 89 GCTGTAGAAAATCCCATGAATAGACTGGTGCAGAGACCTTGAACAGCTCTCCACTCAT 148
QY 121 CGAAGTGGCTGATAGGCGATGGAACTGATGATTCCTACTCTGAAATATAATAC 180
D 149 CGAAGTGGCTGATAGGCGATGGAACTGATGATTCCTACTCTGAAATATAATAC 208
QY 181 CAACTGTCATTAAAGAGTTTTCAGGGTATACACATTGAAGAACCAACGCCAC 240
D 209 CAACTGTCATTAAAGAGTTTTCAGGGTATACACATTGAAGAACCAACGCCAC 268
QY 241 GGGAGGCTGTGATTAACATATTCCTTAATTAAGAAACATAGAGCGC 300
D 269 GGGAGGCTGTGATTAACATATTCCTTAATTAAGAAACATAGAGCGC 328
QY 301 CAAAAAAGGTGTGACAGGAAAGATGAGAGTGAACAAAGTTCTAGACTACGCAA 360
D 329 CAAAAAAGGTGTGACAGGAAAGATGAGAGTGAACAAAGTTCTAGACTACGCAA 388
QY 361 GTATTTCTGTGATTAACACCGAGTGAACCGGAAAGT 402
D 389 GTATTTCTGTGATTAACACCGAGTGAACCGGAAAGT 430
```

RESULT 4

```
US-10-916-286A-80
; Sequence 80, Application US/10916286A
; GENERAL INFORMATION:
; APPLICANT: Sim, Gek-Kee
; APPLICANT: Dreitz, Matthew J.
; TITLE OF INVENTION: CANINE IL-4 IMMUNOREGULATORY PROTEINS AND USES THEREOF
; FILE REFERENCE: IM-2-C1-R
; CURRENT APPLICATION NUMBER: US/10/916,286A
; CURRENT FILING DATE: 2004-08-11
; PRIOR APPLICATION NUMBER: 09/322,409
; PRIOR FILING DATE: 1999-05-28
; PRIOR APPLICATION NUMBER: 60/087,306
; PRIOR FILING DATE: 1998-05-29
; NUMBER OF SEQ ID NOS: 154
; SOFTWARE: PatentIn Ver. 2.0
```

SEQ ID NO 80
LENGTH: 610
TYPE: DNA
ORGANISM: Canis familiaris
FEATURE:
NAME/KEY: CDS
LOCATION: (29) .. (430)
US-10-916-286A-80

Query Match 100.0%; Score 402; DB 11; Length 610;
Best Local Similarity 100.0%; Pred. No. 1.1e-194;
Matches 402; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 ATGAGAAATGCTTGAATTTGAGTTTGTAGCTCTTGGGGGCTGCTATGTTTCTGCTTT 60
DB 29 ATGAGAAATGCTTGAATTTGAGTTTGTAGCTCTTGGGGGCTGCTATGTTTCTGCTTT 88
QY 61 GCTGTAGAAAATCCCATGATAGACTGTGGCAGAGACTTGTGACACTGCTCTCAT 120
DB 89 GCTGTAGAAAATCCCATGATAGACTGTGGCAGAGACTTGTGACACTGCTCTCAT 148
QY 121 CGAATCTGCTGATAGGAGAGGAACTGATGATTTCTACTCTCTGAAAAATTAATAC 180
DB 149 CGAATCTGCTGATAGGAGAGGAACTGATGATTTCTACTCTCTGAAAAATTAATAC 208
QY 181 CAATGTGATTAAGAAAGTTTTCAGGGTATAGACATTTGAAGAACCAATGCCCCAC 240
DB 209 CAATGTGATTAAGAAAGTTTTCAGGGTATAGACATTTGAAGAACCAATGCCCCAC 268
QY 241 GGGGAGGCTGTGATTAACCTATTCCTTTTAAATTAAGAACCATAGAGCGC 300
DB 269 GGGGAGGCTGTGATTAACCTATTCCTTTTAAATTAAGAACCATAGAGCGC 328
QY 301 CAAAAAAGAGTGTGCGAGGAAAGATGAGAGGAAAGTTCCTAGACTTACTGCA 360
DB 329 CAAAAAAGAGTGTGCGAGGAAAGATGAGAGGAAAGTTCCTAGACTTACTGCA 388
QY 361 GTATTTCTGTGATTAACCAAGAGTGTGAGACACCGGAAAGT 402
DB 389 GTATTTCTGTGATTAACCAAGAGTGTGAGACACCGGAAAGT 430

RESULT 5

US-10-916-286A-82/c
Sequence 82, Application US/10916286A
GENERAL INFORMATION:
APPLICANT: Sim, Gek-Kee
APPLICANT: Drelitz, Matthew J.
TITLE OF INVENTION: CANINE IL-4 IMMUNOREGULATORY PROTEINS AND USES THEREOF
FILE REFERENCE: IM-2-C1-R
CURRENT APPLICATION NUMBER: US/10/916,286A
CURRENT FILING DATE: 2004-08-11
PRIOR APPLICATION NUMBER: 09/322,409
PRIOR FILING DATE: 1999-05-28
PRIOR APPLICATION NUMBER: 60/087,306
PRIOR FILING DATE: 1998-05-29
NUMBER OF SEQ ID NOS: 154
SOFTWARE: Patentin Ver. 2.0
SEQ ID NO 82
LENGTH: 610
TYPE: DNA
ORGANISM: Canis familiaris
US-10-916-286A-82

Query Match 100.0%; Score 402; DB 11; Length 610;
Best Local Similarity 100.0%; Pred. No. 1.1e-194;
Matches 402; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 ATGAGAAATGCTTGAATTTGAGTTTGTAGCTCTTGGGGGCTGCTATGTTTCTGCTTT 60
DB 562 ATGAGAAATGCTTGAATTTGAGTTTGTAGCTCTTGGGGGCTGCTATGTTTCTGCTTT 523
QY 61 GCTGTAGAAAATCCCATGATAGACTGTGGCAGAGACTTGTGACACTGCTCTCAT 120

DB 522 GCTGTAGAAAATCCCATGATAGACTGTGGCAGAGACTTGTGACACTGCTCTCAT 463
QY 121 CGAATCTGCTGATAGGAGAGTGGAACTGTATGATTCCTACTCTGAAAAATTAATAC 180
DB 462 CGAATCTGCTGATAGGAGAGTGGAACTGTATGATTCCTACTCTGAAAAATTAATAC 403
QY 181 CAATGTGATTAAGAAAGTTTTCAGGGTATAGACATTTGAAGAACCAATGCCCCAC 240
DB 402 CAATGTGATTAAGAAAGTTTTCAGGGTATAGACATTTGAAGAACCAATGCCCCAC 343
QY 241 GGGGAGGCTGTGATTAACCTATTCCTTTTAAATTAAGAACCATAGAGCGC 300
DB 342 GGGGAGGCTGTGATTAACCTATTCCTTTTAAATTAAGAACCATAGAGCGC 283
QY 301 CAAAAAAGAGTGTGCGAGGAAAGATGAGAGTGAACAAGTTCTAGACTACTGCA 360
DB 282 CAAAAAAGAGTGTGCGAGGAAAGATGAGAGTGAACAAGTTCTAGACTACTGCA 223
QY 361 GTATTTCTGTGATTAACCAAGAGTGTGAGACACCGGAAAGT 402
DB 222 GTATTTCTGTGATTAACCAAGAGTGTGAGACACCGGAAAGT 181

RESULT 6

US-10-916-286A-85
Sequence 85, Application US/10916286A
GENERAL INFORMATION:
APPLICANT: Sim, Gek-Kee
APPLICANT: Drelitz, Matthew J.
TITLE OF INVENTION: CANINE IL-4 IMMUNOREGULATORY PROTEINS AND USES THEREOF
FILE REFERENCE: IM-2-C1-R
CURRENT APPLICATION NUMBER: US/10/916,286A
CURRENT FILING DATE: 2004-08-11
PRIOR APPLICATION NUMBER: 09/322,409
PRIOR FILING DATE: 1999-05-28
PRIOR APPLICATION NUMBER: 60/087,306
PRIOR FILING DATE: 1998-05-29
NUMBER OF SEQ ID NOS: 154
SOFTWARE: Patentin Ver. 2.0
SEQ ID NO 85
LENGTH: 345
TYPE: DNA
ORGANISM: Canis familiaris
FEATURE:
NAME/KEY: CDS
LOCATION: (1) .. (345)
US-10-916-286A-85

Query Match 85.8%; Score 345; DB 11; Length 345;
Best Local Similarity 100.0%; Pred. No. 1.6e-165;
Matches 345; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 58 TTGCTGTAGAAAATCCCATGATAGACTGTGGCAGAGACTTGTGACACTGCTCTCAT 117
DB 1 TTGCTGTAGAAAATCCCATGATAGACTGTGGCAGAGACTTGTGACACTGCTCTCAT 60
QY 118 CATGAACTGTGCTGATAGGCGATGGAACCTGTATTTCTACTCTGAAAAATTAAT 177
DB 61 CATGAACTGTGCTGATAGGCGATGGAACCTGTATTTCTACTCTGAAAAATTAAT 120
QY 178 CACCACTGTGATTAAGAAAGTTTTCAGGGTATAGACATTTGAAGAACCAATGCGC 237
DB 121 CACCACTGTGATTAAGAAAGTTTTCAGGGTATAGACATTTGAAGAACCAATGCGC 180
QY 238 CACGGGAGGCTGTGATTAACCTATTCCTTTTAAATTAAGAACCATAGAG 297
DB 181 CACGGGAGGCTGTGATTAACCTATTCCTTTTAAATTAAGAACCATAGAG 240
QY 298 CGCCAAAAAAGAGTGTGCGAGGAAAGATGAGAGTGAACAAGTTCTAGACTACTG 357
DB 241 CGCCAAAAAAGAGTGTGCGAGGAAAGATGAGAGTGAACAAGTTCTAGACTACTG 300

QY 358 CAAGTATTTCTTGGTGTATTAACACCGAGTGCACCCGGAAGT 402
 DB 301 CAAGTATTTCTTGGTGTATTAACACCGAGTGCACCCGGAAGT 345

RESULT 7

US-10-916-286A-87/c

Sequence 87, Application US/10916286A
 GENERAL INFORMATION:
 APPLICANT: Sim, Gek-Kee
 APPLICANT: Dietz, Matthew J.
 TITLE OF INVENTION: CANINE IL-4 IMMUNOREGULATORY PROTEINS AND USES THEREOF
 FILE REFERENCE: IM-2-C1-R
 CURRENT APPLICATION NUMBER: US/10/916,286A
 CURRENT FILING DATE: 2004-08-11
 PRIOR APPLICATION NUMBER: 09/322,409
 PRIOR FILING DATE: 1999-05-28
 PRIOR APPLICATION NUMBER: 60/087,306
 PRIOR FILING DATE: 1998-05-29
 NUMBER OF SEQ ID NOS: 154
 SOFTWARE: PatentIn Ver. 2.0
 SEQ ID NO 87
 LENGTH: 345
 TYPE: DNA
 ORGANISM: Canis familiaris
 US-10-916-286A-87

Query Match 85.8%; Score 345; DB 11; Length 345;
 Best Local Similarity 100.0%; Pred. No. 1,6e-165;
 Matches 345; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 58 TTTCCTGTGAAATCCCATGATAGACTGTGCAGAGACCTTGACACTGCTCTCACT 117
 DB 345 TTTCCTGTGAAATCCCATGATAGACTGTGCAGAGACCTTGACACTGCTCTCACT 286
 QY 118 CATGAAGTGGCTGATAGAGGAGGAACTGATGATCTTCTACTCTGAAATATAAAT 177
 DB 285 CATGAAGTGGCTGATAGAGGAGGAACTGATGATCTTCTACTCTGAAATATAAAT 226
 QY 178 CACCACTGTGATTAAGAAAGTTTTCAGGGTATAGACATTAAGAAACCAACTGCC 237
 DB 225 CACCACTGTGATTAAGAAAGTTTTCAGGGTATAGACATTAAGAAACCAACTGCC 166
 QY 238 CACGGGAGGCTGTGATTAAGAAAGTTTTCAGGGTATAGACATTAAGAAACCAACTGAG 297
 DB 165 CACGGGAGGCTGTGATTAAGAAAGTTTTCAGGGTATAGACATTAAGAAACCAACTGAG 106
 QY 298 CGCCAAAAGGAGTGTGAGGAGGAAAGATGAGAGTGAACAAGTCTGACTACTG 357
 DB 105 CGCCAAAAGGAGTGTGAGGAGGAAAGATGAGAGTGAACAAGTCTGACTACTG 46
 QY 358 CAAGTATTTCTTGGTGTATTAACACCGAGTGCACCCGGAAGT 402
 DB 45 CAAGTATTTCTTGGTGTATTAACACCGAGTGCACCCGGAAGT 1

RESULT 8

PCT-US05-00517-150

Sequence 150, Application PC/TUS0500517
 GENERAL INFORMATION:
 APPLICANT: THE OHIO STATE UNIVERSITY
 TITLE OF INVENTION: METHODS OF USING DATABASES TO CREATE GENE-EXPRESSION MICROARRAYS,
 FILE REFERENCE: 18525-04130
 CURRENT APPLICATION NUMBER: PCT/US05/00517
 CURRENT FILING DATE: 2005-01-07
 PRIOR APPLICATION NUMBER: 60/535,111
 PRIOR FILING DATE: 2004-01-08
 NUMBER OF SEQ ID NOS: 3859
 SOFTWARE: PatentIn version 3.3
 SEQ ID NO 150
 LENGTH: 405
 TYPE: DNA

ORGANISM: Equus caballus
 PCT-US05-00517-150

Query Match 10.0%; Score 40; DB 1; Length 405;
 Best Local Similarity 100.0%; Pred. No. 1.5e-09;
 Matches 40; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 129 GCTGATAGCGGATGGAGAACTGATGATCTTACTCTGAA 168
 DB 129 GCTGATAGCGGATGGAGAACTGATGATCTTACTCTGAA 168

RESULT 9

US-60-680-544-25813

Sequence 25813, Application US/60680544
 GENERAL INFORMATION:
 APPLICANT: Cooper, Matthew
 APPLICANT: Kinch, Deborah
 APPLICANT: Rosenberg, Michael
 APPLICANT: Subramaniam, S. Sai
 APPLICANT: Szak, Suzanne
 APPLICANT: Li, Huo
 APPLICANT: Bandaru, Raj
 TITLE OF INVENTION: Nucleotide Array Containing Polynucleotide Probes Complementary to
 FILE REFERENCE: 21590290000
 CURRENT APPLICATION NUMBER: US/60/680,544
 CURRENT FILING DATE: 2005-05-13
 NUMBER OF SEQ ID NOS: 48714
 SOFTWARE: Patent Sequence Analysis Tool Version 1.0
 SEQ ID NO 25813
 LENGTH: 405
 TYPE: DNA
 ORGANISM: Macaca Mulatta
 US-60-680-544-25813

Query Match 5.5%; Score 22; DB 23; Length 405;
 Best Local Similarity 100.0%; Pred. No. 2.4;
 Matches 22; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 17 ATTGAGTTTGTCTAGCTCTTGG 38
 DB 17 ATTGAGTTTGTCTAGCTCTTGG 38

RESULT 10

US-60-680-473-25813

Sequence 25813, Application US/60680473
 GENERAL INFORMATION:
 APPLICANT: Cooper, Matthew
 APPLICANT: Kinch, Deborah
 APPLICANT: Rosenberg, Michael
 APPLICANT: Subramaniam, S. Sai
 APPLICANT: Szak, Suzanne
 APPLICANT: Li, Huo
 APPLICANT: Bandaru, Raj
 APPLICANT: Derbel, Maher
 TITLE OF INVENTION: Nucleotide Array Containing Polynucleotide Probes Complementary to
 FILE REFERENCE: 21590290000
 CURRENT APPLICATION NUMBER: US/60/680,473
 CURRENT FILING DATE: 2005-05-13
 NUMBER OF SEQ ID NOS: 48714
 SOFTWARE: Patent Sequence Analysis Tool Version 1.0
 SEQ ID NO 25813
 LENGTH: 405
 TYPE: DNA
 ORGANISM: Macaca Mulatta
 US-60-680-473-25813

Query Match 5.5%; Score 22; DB 23; Length 405;
 Best Local Similarity 100.0%; Pred. No. 2.4;

Matches 22; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Oy 17 ATTGAGTTGCTAGCTCTTG 38
|||
Db 17 ATTGAGTTGCTAGCTCTTG 38

RESULT 11
US-10-880-101A-85
; Sequence 85, Application US/10880101A
; GENERAL INFORMATION:
; APPLICANT: SCHAEBITZ, WOLF-RUEDIGER
; APPLICANT: SCHNEIDER, ARMIN
; APPLICANT: KRUEGER, CAROLA
; APPLICANT: SOMMER, CLEMENS
; APPLICANT: SCHMAB, STEFAN
; APPLICANT: KOILMAR, RAINER
; APPLICANT: MAURER, MARTIN
; APPLICANT: WEBER, DANIELA
; APPLICANT: GASSLER, NIKOLAUS
; TITLE OF INVENTION: METHODS OF TREATING NEUROLOGICAL CONDITIONS WITH HEMATOPOIETIC
; FILE REFERENCE: 254622US
; CURRENT APPLICATION NUMBER: US/10/880,101A
; CURRENT FILING DATE: 2004-06-30
; PRIOR APPLICATION NUMBER: PCT/IB03/006446
; PRIOR FILING DATE: 2003-12-31
; PRIOR APPLICATION NUMBER: US 10/659,295
; PRIOR FILING DATE: 2003-09-11
; PRIOR APPLICATION NUMBER: US 10/331,755
; PRIOR FILING DATE: 2002-12-31
; NUMBER OF SEQ ID NOS: 94
; SOFTWARE: PatentIn version 3.3
; SEQ ID NO 85
; LENGTH: 459
; TYPE: DNA
; ORGANISM: Homo sapiens
US-10-880-101A-85

Query Match 5.5%; Score 22; DB 11; Length 459;
Best Local Similarity 100.0%; Pred. No. 2.4;
Matches 22; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Oy 17 ATTGAGTTGCTAGCTCTTG 38
|||
Db 40 ATTGAGTTGCTAGCTCTTG 61

RESULT 12
US-10-880-101A-87
; Sequence 87, Application US/10880101A
; GENERAL INFORMATION:
; APPLICANT: SCHAEBITZ, WOLF-RUEDIGER
; APPLICANT: SCHNEIDER, ARMIN
; APPLICANT: KRUEGER, CAROLA
; APPLICANT: SOMMER, CLEMENS
; APPLICANT: SCHMAB, STEFAN
; APPLICANT: KOILMAR, RAINER
; APPLICANT: MAURER, MARTIN
; APPLICANT: WEBER, DANIELA
; APPLICANT: GASSLER, NIKOLAUS
; TITLE OF INVENTION: METHODS OF TREATING NEUROLOGICAL CONDITIONS WITH HEMATOPOIETIC
; FILE REFERENCE: 254622US
; CURRENT APPLICATION NUMBER: US/10/880,101A
; CURRENT FILING DATE: 2004-06-30
; PRIOR APPLICATION NUMBER: PCT/IB03/006446
; PRIOR FILING DATE: 2003-12-31
; PRIOR APPLICATION NUMBER: US 10/659,295
; PRIOR FILING DATE: 2003-09-11
; PRIOR APPLICATION NUMBER: US 10/331,755
; PRIOR FILING DATE: 2002-12-31
; NUMBER OF SEQ ID NOS: 94

; SOFTWARE: PatentIn version 3.3
; SEQ ID NO 87
; LENGTH: 816
; TYPE: DNA
; ORGANISM: Homo sapiens
US-10-880-101A-87

Query Match 5.5%; Score 22; DB 11; Length 816;
Best Local Similarity 100.0%; Pred. No. 2.5;
Matches 22; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Oy 17 ATTGAGTTGCTAGCTCTTG 38
|||
Db 61 ATTGAGTTGCTAGCTCTTG 82

RESULT 13
US-60-659-397-502
; Sequence 502, Application US/60659397
; GENERAL INFORMATION:
; APPLICANT: CARGILL, Michele
; APPLICANT: CHANG, Sheng-Yung
; TITLE OF INVENTION: GENETIC POLYMORPHISMS ASSOCIATED WITH
; TITLE OF INVENTION: RESPONSE TO INTERFERON TREATMENT IN HEPATITIS C
; TITLE OF INVENTION: VIRUS-INFECTED SUBJECTS, METHODS OF DETECTION AND USES
; FILE REFERENCE: C001470
; CURRENT APPLICATION NUMBER: US/60/659,397
; CURRENT FILING DATE: 2005-03-09
; NUMBER OF SEQ ID NOS: 47859
; SOFTWARE: FastSeq for Windows Version 4.0
; SEQ ID NO 502
; LENGTH: 816
; TYPE: DNA
; ORGANISM: Homo sapiens
US-60-659-397-502

Query Match 5.5%; Score 22; DB 23; Length 816;
Best Local Similarity 100.0%; Pred. No. 2.5;
Matches 22; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Oy 17 ATTGAGTTGCTAGCTCTTG 38
|||
Db 61 ATTGAGTTGCTAGCTCTTG 82

RESULT 14
US-60-675-841-243
; Sequence 243, Application US/60675841
; GENERAL INFORMATION:
; APPLICANT: Belouchi, Abdelmajid
; APPLICANT: Raelson, John Verneer
; APPLICANT: Bradley, Walter Edward
; APPLICANT: Paquin, Bruno
; APPLICANT: Fournier, Helene
; APPLICANT: Nguyen-Huu, Quynh
; APPLICANT: Croteau, Pascal
; TITLE OF INVENTION: Genemap of the Human Genes Associated with Crohn's Disease
; FILE REFERENCE: 59908-5002-PR
; CURRENT APPLICATION NUMBER: US/60/675,841
; CURRENT FILING DATE: 2005-04-29
; NUMBER OF SEQ ID NOS: 10858
; SOFTWARE: PatentIn version 3.3
; SEQ ID NO 243
; LENGTH: 816
; TYPE: DNA
; ORGANISM: Homo sapiens
US-60-675-841-243

Query Match 5.5%; Score 22; DB 23; Length 816;
Best Local Similarity 100.0%; Pred. No. 2.5;
Matches 22; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

OY 17 ATTGAGTTGCTAGCTCTTGG 38
|||||
Db 61 ATTGAGTTGCTAGCTCTTGG 82
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RESULT 15

US-10-301-480C-971893
; Sequence 971893, Application US/10301480C
; GENERAL INFORMATION:
; APPLICANT: Wang, David G.
; TITLE OF INVENTION: Identification and Mapping of Single
; FILE OF INVENTION: Nucleotide Polymorphisms in the Human Genome
; FILE REFERENCE: 108827-137
; CURRENT APPLICATION NUMBER: US/10/301,480C
; CURRENT FILING DATE: 2002-11-21
; PRIOR APPLICATION NUMBER: US 10/215,598
; PRIOR FILING DATE: 2002-08-09
; PRIOR APPLICATION NUMBER: US 60/311,695
; PRIOR FILING DATE: 2001-08-10
; NUMBER OF SEQ ID NOS: 989478
; SOFTWARE: FastSeq for Windows Version 4.0
; SEQ ID NO 971893
; LENGTH: 994
; TYPE: DNA
; ORGANISM: Homo sapien
US-10-301-480C-971893

Query Match 5.5%; Score 22; DB 9; Length 994;
Best Local Similarity 100.0%; Pred. No. 2.5;
Matches 22; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

OY 17 ATTGAGTTGCTAGCTCTTGG 38
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Db 940 ATTGAGTTGCTAGCTCTTGG 961
|||||

Search completed: August 8, 2005, 16:03:50
Job time : 789.2 secs

GenCore version 5.1.6
Copyright (c) 1993 - 2005 CompuGen Ltd.

OM nucleic - nucleic search, using sw model

Run on: August 8, 2005, 13:43:44 ; Search time 1706.67 Seconds
(without alignments)
8965.920 Million cell updates/sec

Title: US-10-787-382-7

Perfect score: 402
Sequence: 1 atgagaatctctctgaattc.....ccgagtcgacccgaaagt 402

Scoring table: OLIGO_NTC
Gapop 60.0, Gapext 60.0

Searched: 34239544 seqs, 19032134700 residues

Word size : 0

Total number of hits satisfying chosen parameters: 68479088

Minimum DB seq length: 0
Maximum DB seq length: 200000000

Post-processing: Listing first 45 summaries

Database :

EST.*
1: gb_est1.*
2: gb_est2.*
3: gb_hlc.*
4: gb_est3.*
5: gb_est4.*
6: gb_est5.*
7: gb_est6.*
8: gb_gsa1.*
9: gb_gsa2.*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	Query Match	Length	DB ID	Description
1	129	32.1	622	9	CE331159 tigr-gss-
2	22	5.5	405	9	AY412020 Homo sapi
3	22	5.5	405	9	AY412021 Pan trogl
4	22	5.5	456	3	BC066281 Homo sapi
5	22	5.5	456	3	CD559532 AGENCOURT
6	22	5.5	456	6	CD559686 AGENCOURT
7	22	5.5	458	3	BC066279 Homo sapi
8	22	5.5	458	3	BC066280 Homo sapi
9	22	5.5	463	6	CD559535 AGENCOURT
10	22	5.5	467	6	CD559688 AGENCOURT
11	22	5.5	467	6	CD559690 AGENCOURT
12	22	5.5	470	6	CD559687 AGENCOURT
13	22	5.5	477	6	CD559689 AGENCOURT
14	22	5.5	477	6	CD559688 AGENCOURT
15	22	5.5	478	6	CD559534 AGENCOURT
16	22	5.5	489	6	CD559536 AGENCOURT
17	22	5.5	492	6	CD559533 AGENCOURT
18	22	5.5	495	7	CR554944 DKFZ469N
19	22	5.5	817	3	BC069137 Homo sapi
20	21	5.2	428	9	CE301804 tigr-gss-
21	21	5.0	153	9	CE713006 tigr-gss-
22	20	5.0	174	9	CE387560 tigr-gss-
23	20	5.0	305	1	A1666365 mu12c07.x
24	20	5.0	340	1	A1666525 mu22f12.x

C 25	20	5.0	378	8	AQ134641 HS-3055-B
C 26	20	5.0	393	8	BH056804 RPCT-24-3
C 27	20	5.0	417	8	BO456087 ke26c12.y
C 28	20	5.0	431	1	AA200961 mu12c07.x
C 29	20	5.0	490	7	CN448219 GUO_cDNA-
C 30	20	5.0	503	9	CE629992 tigr-gss-
C 31	20	5.0	511	9	CE553498 tigr-gss-
C 32	20	5.0	514	9	CE669822 tigr-gss-
C 33	20	5.0	522	8	BX514766 BX514766
C 34	20	5.0	528	8	AO677395 HS-5526-A
C 35	20	5.0	538	1	AA980077 ua28c03.x
C 36	20	5.0	551	9	CE255920 tigr-gss-
C 37	20	5.0	557	8	A2266075 RPCT-23-1
C 38	20	5.0	576	1	A1645939 mu12c07.y
C 39	20	5.0	587	9	CE144318 tigr-gss-
C 40	20	5.0	591	9	CE101024 tigr-gss-
C 41	20	5.0	591	9	CE566794 tigr-gss-
C 42	20	5.0	595	9	CE384620 tigr-gss-
C 43	20	5.0	605	9	CE687596 tigr-gss-
C 44	20	5.0	608	9	CE027208 tigr-gss-
C 45	20	5.0	615	9	CE240114 tigr-gss-

ALIGNMENTS

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LOCUS
DEFINITION
tigr-gss-dog-1700033986568 Dog library Canis familiaris genomic,
genomic survey sequence.
CE331159
ACCESSION
CE331159.1 GI:36147469
VERSION
KEYWORDS
SOURCE
ORGANISM
Canis familiaris (dog)
Canis familiaris
Eukaryota; Metazoa; Chordata; Cranialia; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Carnivora; Fissipedia; Canidae; Canis.
REFERENCE
1 (bases 1 to 622)
Kirkness, E.F., Bafna, V., Halpern, A.L., Levy, S., Remington, K.,
Rusch, D.B., Delcher, A.L., Pop, M., Wang, W., Fraser, C.M. and
Venter, J.C.
The dog genome: survey sequencing and comparative analysis
Science 301 (5641), 1898-1903 (2003)
MEDLINE
22875432
PUBMED
14512627
COMMENT
Contact: Kirkness EF
The Institute for Genomic Research
Department of Eukaryotic Genomics, TIGR, 9712 Medical Center Drive,
Rockville, MD 20850, USA
Tel: 301-838-0200
Fax: 301-838-0208
Email: ekirkne@tigr.org
Class: shotgun.
FEATURES
source
1..622
location/Qualifiers
/organism="Canis familiaris"
/mol_type="genomic DNA"
/strain="Standard Poodle"
/db_xref="taxon:9615"
/clone_lib="Dog Library"
/note="Site 1: Betx1; Libraries were prepared from
peripheral blood"

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178 CACCACTGTCATTAAAGAGTTTTCAGGCTATACACATTGAAGAACCAACTGCC 237
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QY      238 CAGCGGAGGCTGTGATTAATTCACAACTTGTCTTTAATTAAGAACAACATGAG 237
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QY      298 CGCCAAAAA 306
Db      162 CGCCAAAAA 170

RESULT 2
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LOCUS   Homo sapiens IL5 gene, VIRUTUAL TRANSCRIPT, partial sequence,
DEFINITION
ACCESSION
AY412020
VERSION
KEYWORDS
SOURCE
ORGANISM
Homo sapiens (human)
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Primates; Catarrhini; Homnidae; Homo.
REFERENCE
AUTHORS
Clark,A.G., Glanowski,S., Nielson,R., Thomas,P., Kejariwal,A.,
Todd,M.A., Tanenbaum,D.M., Civejlo,D.R., Lu,F., Murphy,B.,
Ferreira,S., Wang,G., Zheng,X.H., White,T.J., Snihsy,J.J.,
Adams,M.D. and Cargill,M.
Inferred nonneutral evolution from human-chimp-mouse orthologous
gene trios
JOURNAL
Science 302 (5652), 1960-1963 (2003)
PUBMED
14671302
2 (bases 1 to 405)
Clark,A.G., Glanowski,S., Nielson,R., Thomas,P., Kejariwal,A.,
Todd,M.A., Tanenbaum,D.M., Civejlo,D.R., Lu,F., Murphy,B.,
Ferreira,S., Wang,G., Zheng,X.H., White,T.J., Snihsy,J.J.,
Adams,M.D. and Cargill,M.
Direct Submission
Submitted (16-NOV-2003) Celera Genomics, 45 West Gude Drive,
Rockville, MD 20850, USA
This sequence was made by sequencing genomic exons and ordering
them based on alignment.
FEATURES
source
1..405
/organism="Homo sapiens"
/mol_type="genomic DNA"
/db_xref="taxon:9606"
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/genes="IL5"
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Best Local Similarity 100.0%; Pred. No. 3.9;
Matches 22; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY      17 ATTTGAGTTGCTAGCTCTTGG 38
Db      17 ATTTGAGTTGCTAGCTCTTGG 38

RESULT 3
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LOCUS   Pan troglodytes IL5 gene, VIRUTUAL TRANSCRIPT, partial sequence,
DEFINITION
ACCESSION
AY412021
VERSION
KEYWORDS
SOURCE
ORGANISM
Homo sapiens (human)
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Primates; Catarrhini; Homnidae; Pan.
REFERENCE
AUTHORS
Clark,A.G., Glanowski,S., Nielson,R., Thomas,P., Kejariwal,A.,

```

```

Todd,M.A., Tanenbaum,D.M., Civejlo,D.R., Lu,F., Murphy,B.,
Ferreira,S., Wang,G., Zheng,X.H., White,T.J., Snihsy,J.J.,
Adams,M.D. and Cargill,M.
Inferred nonneutral evolution from human-chimp-mouse orthologous
gene trios
JOURNAL
Science 302 (5652), 1960-1963 (2003)
PUBMED
14671302
2 (bases 1 to 405)
Clark,A.G., Glanowski,S., Nielson,R., Thomas,P., Kejariwal,A.,
Todd,M.A., Tanenbaum,D.M., Civejlo,D.R., Lu,F., Murphy,B.,
Ferreira,S., Wang,G., Zheng,X.H., White,T.J., Snihsy,J.J.,
Adams,M.D. and Cargill,M.
Direct Submission
Submitted (16-NOV-2003) Celera Genomics, 45 West Gude Drive,
Rockville, MD 20850, USA
This sequence was made by sequencing genomic exons and ordering
them based on alignment.
FEATURES
source
1..405
/organism="Pan troglodytes"
/mol_type="genomic DNA"
/db_xref="taxon:9598"
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/genes="IL5"
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Query Match 5.5%; Score 22; DB 9; Length 405;
Best Local Similarity 100.0%; Pred. No. 3.9;
Matches 22; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY      17 ATTTGAGTTGCTAGCTCTTGG 38
Db      17 ATTTGAGTTGCTAGCTCTTGG 38

RESULT 4
BC066281
LOCUS   Homo sapiens cDNA clone IMAGE:5971770, containing frame-shift
DEFINITION
ACCESSION
BC066281
VERSION
BC066281.1 GI:42490969
KEYWORDS
SOURCE
ORGANISM
Homo sapiens (human)
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Primates; Catarrhini; Homnidae; Homo.
1 (bases 1 to 456)
Strausberg,R.D., Feingold,E.A., Grouse,L.H., Derge,J.G.,
Klausner,R.D., Collins,F.S., Wagner,L., Shennan,C.M., Schuler,G.D.,
Altschuler,S.F., Zeeberg,B., Buetow,K.H., Schaefer,C.F., Bhat,N.K.,
Hopkins,R.F., Jordan,H., Moore,T., Max,S.I., Wang,J., Hsieh,F.,
Diatchenko,L., Marusina,K., Farmer,A.A., Rubin,G.M., Hong,L.,
Stepleton,M., Soares,M.B., Donald,M.F., Casavant,T.L.,
Scheetz,T.E., Brownstein,M.J., Uesdin,T.B., Toshlyuk,S.,
Carninci,P., Prange,C., Raha,S.S., Locquellano,N.A., Peters,G.J.,
Abramson,R.D., Mullany,S.J., Bosak,S.A., McSwan,P.J.,
McKernan,K.J., Malek,J.A., Gunaratne,P.H., Richards,S.,
Wortley,K.C., Hale,S., Garcia,A.M., Gay,L.J., Huijck,S.W.,
Villalon,D.K., Muzny,D.M., Sodergren,E.J., Lu,X., Gibbs,R.A.,
Fahy,J., Helton,E., Kettelman,M., Madan,A., Rodriguez,S.,
Sanchez,A., Whiting,M., Madan,A., Young,A.C., Shevchenko,Y.,
Bouffard,G.G., Blakeley,R.W., Touchman,J.W., Green,E.D.,
Dickson,M.C., Rodriguez,A.C., Grimwood,J., Schmutz,J., Myers,R.M.,
Butterfield,Y.S., Krzywinski,M.I., Skalska,U., Smallus,D.E.,
Scheerch,A., Schein,U.E., Jones,S.J. and Marra,M.A.
Generation and initial analysis of more than 15,000 full-length
human and mouse cDNA sequences
Proc. Natl. Acad. Sci. U.S.A. 99 (26), 1689-16903 (2002)
12477932
2 (bases 1 to 456)
Strausberg,R.

```

TITLE Direct Submission
JOURNAL Submitted (03-FEB-2004) National Institutes of Health, Mammalian Gene Collection (MGC), Cancer Genomics Office, National Cancer Institute, 31 Center Drive, Room 11A03, Bethesda, MD 20892-2550, USA

REMARK NIH-MGC Project URL: <http://mgc.nci.nih.gov>
COMMENT Contact: MGC help desk
Email: cgabs-remail.nih.gov
Tissue Procurement: Narayan Bhat
cDNA Library Preparation: Bhat Laboratory
cDNA Library Arrayed by: The I.M.A.G.E. Consortium (LNL)
DNA Sequencing by: Sequencing Group at the Stanford Human Genome Center, Stanford University School of Medicine, Stanford, CA 94305
Web site: <http://www.shgc.stanford.edu>
Contact: (Dickson, Mark) mcd@paxil.stanford.edu
Dickson, M., Schmutz, J., Grimwood, J., Rodriguez, A., and Myers, R. M.

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1. .456
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Qy 17 ATTGAGTTGCTAGCTCTTGG 38
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40 ATTGAGTTGCTAGCTCTTGG 61

RESULT 5
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LOCUS AGENCOURT 14497057 NIH_MGC_195 Homo sapiens cDNA clone
DEFINITION IMAGE:6971772 5', mRNA sequence.
ACCESSION CD559532
VERSION CD559532.1 GI:31585600
KEYWORDS EST.
SOURCE Homo sapiens (human)
ORGANISM Homo sapiens
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Primates; Catarrhini; Homnidae; Homo.
REFERENCE 1 (bases 1 to 456)
AUTHORS NIH-MGC <http://mgc.nci.nih.gov/>.
TITLE National Institutes of Health, Mammalian Gene Collection (MGC)
JOURNAL Unpublished (1999)
COMMENT Contact: Daniela S. Gerhard, Ph.D.
Office of Cancer Genomics / NIH
National Cancer Institute / NIH
Bldg. 31 Rm10A07 Bethesda, MD 20892
Email: cgabs-remail.nih.gov
Tissue Procurement: Narayan Bhat
cDNA Library Preparation: Bhat Laboratory
cDNA Library Arrayed by: The I.M.A.G.E. Consortium (LNL)
DNA Sequencing by: Agencourt Bioscience Corporation
Clone distribution: MGC clone distribution information can be found through the I.M.A.G.E. Consortium/LNL at: <http://image.llnl.gov>

FEATURES
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/clone_id="NIH_MGC_195"
/note="Vector: pDNR-Dual; Site_1: loxp-Sall; Site_2: loxp-HindIII; Clones from this library have been PCR-amplified using gene-specific primers to contain the complete open reading frame (based on known gene sequences available from NCBI's RefSeq). Template for PCR is cDNA derived from either pooled cytoplasmic polyA RNA from 30 cells lines or pooled total RNA from 10 different tissues (from BD Biosciences/Clontech and Washington University). PCR products are directionally cloned into the loxp sites of the pDNR-Dual vector. Library constructed by Dr. Narayan Bhat, Earl Bere III and Hongling Liao (Gene Expression Laboratory, Research Technology Program, SAIC Frederick, NCI-Frederick, Frederick, MD 21702). For information on which gene each clone represents, please visit our anonymous ftp site at ftp://image.llnl.gov/image/rearrayed_plates/IRBK_presv.dat
a Note: this is a NIH_MGC library."

ORIGIN
Query Match 5.5%; Score 22; DB 6; Length 456;
Best Local Similarity 100.0%; Pred. No. 3.9;
Matches 22; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 17 ATTGAGTTGCTAGCTCTTGG 38
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38 ATTGAGTTGCTAGCTCTTGG 59

RESULT 6
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LOCUS AGENCOURT 14497093 NIH_MGC_195 Homo sapiens cDNA clone
DEFINITION IMAGE:6971772 3', mRNA sequence.
ACCESSION CD559686
VERSION CD559686.1 GI:31585754
KEYWORDS EST.
SOURCE Homo sapiens (human)
ORGANISM Homo sapiens
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Primates; Catarrhini; Homnidae; Homo.
REFERENCE 1 (bases 1 to 456)
AUTHORS NIH-MGC <http://mgc.nci.nih.gov/>.
TITLE National Institutes of Health, Mammalian Gene Collection (MGC)
JOURNAL Unpublished (1999)
COMMENT Contact: Daniela S. Gerhard, Ph.D.
Office of Cancer Genomics / NIH
National Cancer Institute / NIH
Bldg. 31 Rm10A07 Bethesda, MD 20892
Email: cgabs-remail.nih.gov
Tissue Procurement: Narayan Bhat
cDNA Library Preparation: Bhat Laboratory
cDNA Library Arrayed by: The I.M.A.G.E. Consortium (LNL)
DNA Sequencing by: Agencourt Bioscience Corporation
Clone distribution: MGC clone distribution information can be found through the I.M.A.G.E. Consortium/LNL at: <http://image.llnl.gov>
Plate: IRBK1 row: 9 column: 11
High quality sequence stop: 456.
Location/Qualifiers
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/mol_type="mRNA"

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PCR-amplified using gene-specific primers to contain the
complete open reading frame (based on known gene sequences
available from NCBI's RefSeq). Template for PCR is cDNA
derived from either pooled cytoplasmic polyA RNA from 30
cells lines or pooled total RNA from 10 different tissues
(from BD Biosciences/Clontech and Washington University).
PCR products are directionally cloned into the loxp sites
of the pDNR-Dual vector. Library constructed by Dr.
Narayan Bhat, Earl Bere III and Hongling Liao (Gene
Expression Laboratory, Research Technology Program, SAIC
Frederick, NCI-Frederick, Frederick, MD 21702). For
information on which gene each clone represents, please
visit our anonymous ftp site at
ftp://image.llnl.gov/image/rearranged_plates/IRBK.presv.dat
a Note: this is a NIH_MGC Library."

```

```

REMARK
COMMENT
Institute, 31 Center Drive, Room 11A03, Bethesda, MD 20892-2590,
USA
NIH-MGC Project URL: http://mgc.nci.nih.gov
Contact: MGC help desk
Email: cgabs-remail.nih.gov
Tissue Procurement: Narayan Bhat
cDNA Library Preparation: Bhat Laboratory
cDNA Library Arrayed by: The I.M.A.G.E. Consortium (LLNL)
DNA Sequencing by: Sequencing Group at the Stanford Human Genome
Center, Stanford University School of Medicine, Stanford, CA 94305
Web site: http://www-ehgc.stanford.edu
Contact: (Dickson, Mark) mcd@paxil.stanford.edu
Dickson, M., Schmutz, J., Grimwood, J., Rodriguez, A., and Myers,
R. M.

```

FEATURES

source

```

Query Match 5.5%; Score 22; DB 6; Length 456;
Best Local Similarity 100.0%; Pred. No. 3.9;
Matches 22; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

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ORIGIN

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/clone_id="NIH_MGC_195"
/lab_host="DH10B"
/notes="Vector: pDNR-Dual"

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Best Local Similarity 100.0%; Pred. No. 3.9;
Matches 22; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

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Query Match 5.5%; Score 22; DB 3; Length 458;
Best Local Similarity 100.0%; Pred. No. 3.9;
Matches 22; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

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Query Match 5.5%; Score 22; DB 3; Length 458;
Best Local Similarity 100.0%; Pred. No. 3.9;
Matches 22; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

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RESULT 7
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LOCUS Homo sapiens cDNA clone IMAGE:6971768, containing frame-shift
errors.
BC066279.1 GI:42490901
HTC.
Homo sapiens (human)
ACCESSION
VERSION BC066279.1
KEYWORDS
SOURCE Homo sapiens (human)
ORGANISM
REFERENCE
AUTHORS
Strausberg R.L., Feingold E.A., Grouse L.H., Derge J.G.,
Altschul S.F., Zeeberg B., Buetow K.H., Schaefer C.F., Bhat N.K.,
Hopkins R.F., Jordan H., Moore T., Max S.I., Wang J., Hsieh F.,
Datchenko L., Marusina K., Farmer A.A., Rubin G.M., Hong L.,
Stapleton M., Soares M.B., Bonaldo M.F., Casavant T.L.,
Scheltz T.E., Brownstein M.J., Usdin T.B., Toshiyuki S.,
Carninci P., Prange C., Raha S.S., Loquellano N.A., Peters G.J.,
Abramson R.D., Mulvaney S.J., Bosak S.A., McEwan P.J.,
Mckenman K.J., Malek J.A., Gunaratne P.H., Richards S.,
Worley K.C., Hale S., Garcia A.M., Gay L.J., Huiyk S.W.,
Villalón D.K., Muzny D.M., Sodergren E.J., Lu X., Gibbs R.A.,
Fahy J., Helton E., Kettman M., Madan A., Rodriguez S.,
Sanchez A., Whiting M., Madan A., Young A.C., Shevchenko Y.,
Bouffard G.G., Blakesley R.W., Touchman J.W., Green E.D.,
Dickson M.C., Rodriguez A.C., Grimwood J., Schmutz J., Myers R.M.,
Butterfield Y.S., Krzywinski M.I., Skalska U., Smalins D.E.,
Schnerch A., Schein J.E., Jones S.J. and Marra M.A.
Generation and initial analysis of more than 15,000 full-length
human and mouse cDNA sequences
Proc. Natl. Acad. Sci. U.S.A. 99 (26), 16899-16903 (2002)
12477932
2 (bases 1 to 458)
Strausberg, R.
Direct Submission
Submitted (03-FEB-2004) National Institutes of Health, Mammalian
Gene Collection (MGC), Cancer Genomics Office, National Cancer

```

```

RESULT 8
BC066280 458 bp mRNA linear HTC 12-FEB-2004
LOCUS Homo sapiens cDNA clone IMAGE:6971769, containing frame-shift
errors.
BC066280.1 GI:42490838
HTC.
Homo sapiens (human)
ACCESSION
VERSION BC066280.1
KEYWORDS
SOURCE Homo sapiens (human)
ORGANISM
REFERENCE
AUTHORS
Strausberg R.L., Feingold E.A., Grouse L.H., Derge J.G.,
Altschul S.F., Zeeberg B., Buetow K.H., Schaefer C.F., Bhat N.K.,
Hopkins R.F., Jordan H., Moore T., Max S.I., Wang J., Hsieh F.,
Datchenko L., Marusina K., Farmer A.A., Rubin G.M., Hong L.,
Stapleton M., Soares M.B., Bonaldo M.F., Casavant T.L.,
Scheltz T.E., Brownstein M.J., Usdin T.B., Toshiyuki S.,
Carninci P., Prange C., Raha S.S., Loquellano N.A., Peters G.J.,
Abramson R.D., Mulvaney S.J., Bosak S.A., McEwan P.J.,
Mckenman K.J., Malek J.A., Gunaratne P.H., Richards S.,
Worley K.C., Hale S., Garcia A.M., Gay L.J., Huiyk S.W.,
Villalón D.K., Muzny D.M., Sodergren E.J., Lu X., Gibbs R.A.,
Fahy J., Helton E., Kettman M., Madan A., Rodriguez S.,
Sanchez A., Whiting M., Madan A., Young A.C., Shevchenko Y.,
Bouffard G.G., Blakesley R.W., Touchman J.W., Green E.D.,
Dickson M.C., Rodriguez A.C., Grimwood J., Schmutz J., Myers R.M.,
Butterfield Y.S., Krzywinski M.I., Skalska U., Smalins D.E.,
Schnerch A., Schein J.E., Jones S.J. and Marra M.A.

```

TITLE Generation and initial analysis of more than 15,000 full-length human and mouse cDNA sequences
JOURNAL Proc. Natl. Acad. Sci. U.S.A. 99 (26), 16899-16903 (2002)
PUBMED 12477932
REFERENCE 2 (bases 1 to 458)
AUTHORS Strausberg, R.
TITLE Direct Submission
JOURNAL Submitted (03-FEB-2004) National Institutes of Health, Mammalian Gene Collection (MGC), Cancer Genomics Office, National Cancer Institute, 31 Center Drive, Room 11A03, Bethesda, MD 20892-2590, USA

REMARK NIH-MGC Project URL: <http://mgc.nci.nih.gov>
COMMENT Contact: MGC help desk
 Email: cgapbs-remail.nih.gov
 Tissue Procurement: Narayan Bhat
 cDNA Library Preparation: Bhat Laboratory
 cDNA Library Arrayed by: The I.M.A.G.E. Consortium (LNLN)
 DNA Sequencing by: Sequencing Group at the Stanford Human Genome Center, Stanford University School of Medicine, Stanford, CA 94305
 Web site: <http://www-shgc.stanford.edu>
 Contact: (Dickson, Mark) mcdpaxil@stanford.edu
 Dickson, M., Schmutz, J., Grimwood, J., Rodriguez, A., and Myers, R. M.

FEATURES
SOURCE
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 /tissue_type="PCR rescued clones"
 /clone_lib="NIH MGC_195"
 /lab_host="DH10B"
 /note="Vector: pDNR-Dual"

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 Matches 22; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 17 ATTGAGTTGCTAGCTCTTGG 38
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Db 40 ATTGAGTTGCTAGCTCTTGG 61

RESULT 9
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LOCUS AGENCOURT 14496865 NIH MGC 195 Homo sapiens cDNA clone
DEFINITION IMAGE:6971769 5', mRNA sequence.
ACCESSION CD559535
VERSION CD559535.2 GI:38558950
KEYWORDS EST.
SOURCE Homo sapiens (human)
ORGANISM Homo sapiens
REFERENCE 1 (bases 1 to 463)
AUTHORS NIH-MGC <http://mgc.nci.nih.gov/>.
TITLE National Institutes of Health, Mammalian Gene Collection (MGC)
JOURNAL Unpublished (1999)
COMMENT On Jun 10, 2003 this sequence version replaced gi:31585603.
 Contact: Daniela S. Gerhard, Ph.D.
 Office of Cancer Genomics
 National Cancer Institute / NIH
 Bldg. 31 Rm10A07 Bethesda, MD 20892
 Email: cgapbs-remail.nih.gov

Tissue Procurement: Narayan Bhat
cDNA Library Preparation: Bhat Laboratory
cDNA Library Arrayed by: The I.M.A.G.E. Consortium (LNLN)
DNA Sequencing by: Agencourt Bioscience Corporation
Clone distribution: MGC clone distribution information can be found through the I.M.A.G.E. Consortium/LNLN at: <http://image.llnl.gov>
Plate: IRBK1 row: 9 column: 08
High quality sequence stop: 463.
Location/Qualifiers
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 /clone_lib="NIH MGC_195"
 /note="Vector: pDNR-Dual; Site 1: loxP-Sall; Site 2: loxP-HindIII; Clones from this library have been PCR-amplified using gene-specific primers to contain the complete open reading frame (based on known gene sequences available from NCBI's RefSeq). Template for PCR is cDNA derived from either pooled cytoplasmic polyA RNA from 30 cells lines or pooled total RNA from 10 different tissues (from BD Biosciences/Clontech and Washington University). PCR products are directionally cloned into the loxP sites of the pDNR-Dual vector. Library constructed by Dr. Narayan Bhat, Bari Bere III and Hongling Liao (Gene Expression Laboratory, Research Technology Program, SAIC Frederick, NCI-Frederick, Frederick, MD 21702). For information on which gene each clone represents, please visit our anonymous ftp site at ftp://image.llnl.gov/image/rearranged_plates/IRBK.presv.dat
 a Note: this is a NIH_MGC Library."

ORIGIN
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 Best Local Similarity 100.0%; Pred. No. 3.9;
 Matches 22; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 17 ATTGAGTTGCTAGCTCTTGG 38
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Db 44 ATTGAGTTGCTAGCTCTTGG 65

RESULT 10
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LOCUS AGENCOURT 14496964 NIH MGC 195 Homo sapiens cDNA clone
DEFINITION IMAGE:6971770 5', mRNA sequence.
ACCESSION CD559688
VERSION CD559688.2 GI:38453486
KEYWORDS EST.
SOURCE Homo sapiens (human)
ORGANISM Homo sapiens
REFERENCE 1 (bases 1 to 467)
AUTHORS NIH-MGC <http://mgc.nci.nih.gov/>.
TITLE National Institutes of Health, Mammalian Gene Collection (MGC)
JOURNAL Unpublished (1999)
COMMENT On Jun 10, 2003 this sequence version replaced gi:31585756.
 Contact: Daniela S. Gerhard, Ph.D.
 Office of Cancer Genomics
 National Cancer Institute / NIH
 Bldg. 31 Rm10A07 Bethesda, MD 20892
 Email: cgapbs-remail.nih.gov
 Tissue Procurement: Narayan Bhat
 cDNA Library Preparation: Bhat Laboratory
 cDNA Library Arrayed by: The I.M.A.G.E. Consortium (LNLN)
 DNA Sequencing by: Agencourt Bioscience Corporation
 Clone distribution: MGC clone distribution information can be

found through the I.M.A.G.E. Consortium/LLNL at:
http://image.llnl.gov

Plate: IRBK1 row: 9 column: 09
High quality sequence start: 11
High quality sequence stop: 467.
Location/Qualifiers

FEATURES

Source

1. .467
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/db_xref="taxon:9606"
/clone="IMAGE:6971770"
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/lab_host="DH5A (T1 phage-resistant)"
/clone_id="NIH_MGC_195"
/note="Vector: pDNR-Dual; Site 1: loxp-SalI; Site 2:
loxP-HindIII; Clones from this library have been
PCR-amplified using gene-specific primers to contain the
complete open reading frame (based on known gene sequences
available from NCBI's RefSeq). Template for PCR is cDNA
derived from either pooled cytoplasmic polyA RNA from 30
cells lines or pooled total RNA from 10 different tissues
(from BD Biosciences/Clontech and Washington University).
PCR products are directionally cloned into the loxp sites
of the pDNR-Dual vector. Library constructed by Dr.
Narayan Bhat, Earl Bere III and Hongling Liao (Gene
Expression Laboratory, Research Technology Program, SAIC
Frederick, NCI-Frederick, Frederick, MD 21702). For
information on which gene each clone represents, please
visit our anonymous ftp site at
ftp://image.llnl.gov/image/rearrayed_plates/IRBK-presv.dat
A Note: this is a NIH_MGC Library."

ORIGIN

Query Match 5.5%; Score 22; DB 6; Length 467;
Best Local Similarity 100.0%; Pred. No. 3.9;
Matches 22; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 17 ATTGAGTTGCTAGCTCTTGG 38
|||||
Db 427 ATTGAGTTGCTAGCTCTTGG 406

RESULT 11
CD559690/c 467 bp mRNA linear EST 19-NOV-2003
LOCUS
DEFINITION AGENCOURT 14496838 NIH_MGC_195 Homo sapiens cDNA clone
IMAGE:69717768 5', mRNA sequence.
ACCESSION CD559690
VERSION CD559690.2 GI:38453490
KEYWORDS EST.
SOURCE Homo sapiens (human)
ORGANISM Homo sapiens
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Primates; Catarrhini; Homnidae; Homo.
REFERENCE 1 (bases 1 to 467)
AUTHORS NIH-MGC http://mgc.nci.nih.gov/.
TITLE National Institutes of Health, Mammalian Gene Collection (MGC)
JOURNAL Unpublished (1999)
COMMENT On Jun 10, 2003 this sequence version replaced gi:31585758.
Contact: Daniela S. Gerhard, Ph.D.
Office of Cancer Genomics
National Cancer Institute / NIH
Bldg. 31 Rm10A07 Bethesda, MD 20892
Email: cgaeps-remail.nih.gov
Tissue Procurement: Narayan Bhat
cDNA Library Preparation: Bhat Laboratory
DNA Sequencing by: The I.M.A.G.E. Consortium (LLNL)
Clone distribution: Agencourt Bioscience Corporation
found through the I.M.A.G.E. Consortium/LLNL at:
http://image.llnl.gov

Plate: IRBK1 row: 9 column: 07
High quality sequence stop: 467.

FEATURES

Source

Location/Qualifiers
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/clone_id="NIH_MGC_195"
/note="Vector: pDNR-Dual; Site 1: loxp-SalI; Site 2:
loxP-HindIII; Clones from this library have been
PCR-amplified using gene-specific primers to contain the
complete open reading frame (based on known gene sequences
available from NCBI's RefSeq). Template for PCR is cDNA
derived from either pooled cytoplasmic polyA RNA from 30
cells lines or pooled total RNA from 10 different tissues
(from BD Biosciences/Clontech and Washington University).
PCR products are directionally cloned into the loxp sites
of the pDNR-Dual vector. Library constructed by Dr.
Narayan Bhat, Earl Bere III and Hongling Liao (Gene
Expression Laboratory, Research Technology Program, SAIC
Frederick, NCI-Frederick, Frederick, MD 21702). For
information on which gene each clone represents, please
visit our anonymous ftp site at
ftp://image.llnl.gov/image/rearrayed_plates/IRBK-presv.dat
A Note: this is a NIH_MGC Library."

ORIGIN

Query Match 5.5%; Score 22; DB 6; Length 467;
Best Local Similarity 100.0%; Pred. No. 3.9;
Matches 22; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 17 ATTGAGTTGCTAGCTCTTGG 38
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Db 427 ATTGAGTTGCTAGCTCTTGG 406

RESULT 12
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LOCUS
DEFINITION AGENCOURT 14497029 NIH_MGC_195 Homo sapiens cDNA clone
IMAGE:6971771 5', mRNA sequence.
ACCESSION CD559687
VERSION CD559687.2 GI:38453484
KEYWORDS EST.
SOURCE Homo sapiens (human)
ORGANISM Homo sapiens
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Primates; Catarrhini; Homnidae; Homo.
REFERENCE 1 (bases 1 to 470)
AUTHORS NIH-MGC http://mgc.nci.nih.gov/.
TITLE National Institutes of Health, Mammalian Gene Collection (MGC)
JOURNAL Unpublished (1999)
COMMENT On Jun 10, 2003 this sequence version replaced gi:31585755.
Contact: Daniela S. Gerhard, Ph.D.
Office of Cancer Genomics
National Cancer Institute / NIH
Bldg. 31 Rm10A07 Bethesda, MD 20892
Email: cgaeps-remail.nih.gov
Tissue Procurement: Narayan Bhat
cDNA Library Preparation: Bhat Laboratory
DNA Sequencing by: The I.M.A.G.E. Consortium (LLNL)
Clone distribution: Agencourt Bioscience Corporation
found through the I.M.A.G.E. Consortium/LLNL at:
http://image.llnl.gov

FEATURES

Source

1. .470
/organism="Homo sapiens"
/mol_type="mRNA"

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/clone_lib="NIH MGC 195"
/note="Vector: pDNR-Dual; Site 1: loxp-Sall; Site 2:
loxP-HindIII; Clones from this library have been
PCR-amplified using gene-specific primers to contain the
complete open reading frame (based on known gene sequences
available from NCBI's RefSeq). Template for PCR is cDNA
derived from either pooled cytoplasmic polyA RNA from 30
cells lines or pooled total RNA from 10 different tissues
(from BD Biosciences/Clontech and Washington University).
PCR products are directionally cloned into the loxp sites
of the pDNR-Dual vector. Library constructed by Dr.
Narayan Bhat, Earl Bere III and Hongling Liao (Gene
Expression Laboratory, Research Technology Program, SAIC
Frederick, NCI-Frederick, Frederick, MD 21702). For
information on which gene each clone represents, please
visit our anonymous ftp site at
ftp://image.llnl.gov/image/rearrayed_plates/IRBK.presv.dat
a Note: this is a NIH_MGC Library."

ORIGIN

Query Match 5.5%; Score 22; DB 6; Length 470;
Best Local Similarity 100.0%; Pred. No. 3.9;
Matches 22; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

OY 17 ATTGAGTTGCTAGCTCTTGG 38
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430 ATTGAGTTGCTAGCTCTTGG 409

Db 430 ATTGAGTTGCTAGCTCTTGG 409

RESULT 13
CD559689/c 473 bp mRNA linear EST 19-NOV-2003
LOCUS AGENCOURT 14496901 NIH MGC 195 Homo sapiens cDNA clone
DEFINITION IMAGE:6971769.5', mRNA sequence.
ACCESSION CD559689
VERSION CD559689.2 GI:38453487
KEYWORDS EST.
SOURCE Homo sapiens (human)
ORGANISM Homo sapiens
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Primates; Catarrhini; Homnidae; Homo.
REFERENCE 1 (bases 1 to 473)
AUTHORS NIH-MGC http://mgc.nci.nih.gov/.
TITLE National Institutes of Health, Mammalian Gene Collection (MGC)
JOURNAL Unpublished (1999)
COMMENT On Jun 10, 2003 this sequence version replaced gi:31585757.
Contact: Daniela S. Gerhardt, Ph.D.
Office of Cancer Genomics
National Cancer Institute / NIH
Bldg. 31 Rm10A07 Bethesda, MD 20892
Email: cgapbs-remail.nih.gov
Tissue Procurement: Narayan Bhat
cDNA Library Preparation: Bhat Laboratory
cDNA Library Arrayed by: The I.M.A.G.E. Consortium (LLNL)
DNA Sequencing by: Agencourt Bioscience Corporation
Clone distribution: MGC clone distribution information can be
found through the I.M.A.G.E. Consortium/LLNL at:
http://image.llnl.gov
Plate: IRBK1 row: 9 column: 08
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High quality sequence stop: 473.
Location/Qualifiers

FEATURES
source

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/clone_lib="NIH MGC 195"
/note="Vector: pDNR-Dual; Site 1: loxp-Sall; Site 2:
loxP-HindIII; Clones from this library have been
PCR-amplified using gene-specific primers to contain the
complete open reading frame (based on known gene sequences
available from NCBI's RefSeq). Template for PCR is cDNA
derived from either pooled cytoplasmic polyA RNA from 30
cells lines or pooled total RNA from 10 different tissues
(from BD Biosciences/Clontech and Washington University).
PCR products are directionally cloned into the loxp sites
of the pDNR-Dual vector. Library constructed by Dr.
Narayan Bhat, Earl Bere III and Hongling Liao (Gene
Expression Laboratory, Research Technology Program, SAIC
Frederick, NCI-Frederick, Frederick, MD 21702). For
information on which gene each clone represents, please
visit our anonymous ftp site at
ftp://image.llnl.gov/image/rearrayed_plates/IRBK.presv.dat
a Note: this is a NIH_MGC Library."

ORIGIN

Query Match 5.5%; Score 22; DB 6; Length 473;
Best Local Similarity 100.0%; Pred. No. 3.9;
Matches 22; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

OY 17 ATTGAGTTGCTAGCTCTTGG 38
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433 ATTGAGTTGCTAGCTCTTGG 412

Db 433 ATTGAGTTGCTAGCTCTTGG 412

RESULT 14
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LOCUS AGENCOURT 14496997 NIH MGC 195 Homo sapiens cDNA clone
DEFINITION IMAGE:6971867.5', mRNA sequence.
ACCESSION CD559608
VERSION CD559608.2 GI:38558942
KEYWORDS EST.
SOURCE Homo sapiens (human)
ORGANISM Homo sapiens
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Primates; Catarrhini; Homnidae; Homo.
REFERENCE 1 (bases 1 to 477)
AUTHORS NIH-MGC http://mgc.nci.nih.gov/.
TITLE National Institutes of Health, Mammalian Gene Collection (MGC)
JOURNAL Unpublished (1999)
COMMENT On Jun 10, 2003 this sequence version replaced gi:31585676.
Contact: Daniela S. Gerhardt, Ph.D.
Office of Cancer Genomics
National Cancer Institute / NIH
Bldg. 31 Rm10A07 Bethesda, MD 20892
Email: cgapbs-remail.nih.gov
Tissue Procurement: Narayan Bhat
cDNA Library Preparation: Bhat Laboratory
cDNA Library Arrayed by: The I.M.A.G.E. Consortium (LLNL)
DNA Sequencing by: Agencourt Bioscience Corporation
Clone distribution: MGC clone distribution information can be
found through the I.M.A.G.E. Consortium/LLNL at:
http://image.llnl.gov
Plate: IRBK2 row: 9 column: 10
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High quality sequence stop: 353.
Location/Qualifiers

FEATURES
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/clone_lib="NIH MGC 195"
/note="Vector: pDNR-Dual; Site 1: loxp-Sall; Site 2:
loxP-HindIII; Clones from this library have been
PCR-amplified using gene-specific primers to contain the

complete open reading frame (based on known gene sequences available from NCBI's RefSeq). Template for PCR is cDNA derived from either pooled cytoplasmic polyA RNA from 30 cells lines or pooled total RNA from 10 different tissues (from BD Biosciences/Clontech and Washington University). PCR products are directionally cloned into the loxp sites of the pDNR-Dual vector. Library constructed by Dr. Narayan Bhat, Earl Bere III and Hongling Liao (Gene Expression Laboratory, Research Technology Program, SAIC Frederick, NCI-Frederick, Frederick, MD 21702). For information on which gene each clone represents, please visit our anonymous ftp site at ftp://image.llnl.gov/image/rearranged_plates/IRBK.presv.dat
a Note: this is a NIH_MGC Library."

ORIGIN

Query Match 5.5%; Score 22; DB 6; Length 477;
Best Local Similarity 100.0%; Pred. No. 3.9;
Matches 22; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 17 ATTGAGTTGCTAGCTCTTGG 38
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Db 57 ATTGAGTTGCTAGCTCTTGG 78

RESULT 15

CD559534

CD559534

AGENCOURT 14496928 NIH_MGC 195 Homo sapiens cDNA clone
IMAGE:6971770 5', mRNA sequence.

ACCESSION

CD559534

VERSION

CD559534.2

KEYWORDS

EST.

SOURCE

Homo sapiens (human)

ORGANISM

REFERENCE

1

AUTHORS

NIH-MGC <http://mgc.nci.nih.gov/>.

TITLE

National Institutes of Health, Mammalian Gene Collection (MGC)

JOURNAL

Unpublished (1999)

COMMENT

On Jun 10, 2003 this sequence version replaced gi:31585602.

CONTACT: Daniela S. Gerhardt, Ph.D.

Office of Cancer Genomics

National Cancer Institute / NIH

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Email: CGAPbs-remail.nih.gov

Tissue Procurement: Narayan Bhat

cDNA Library Preparation: Bhat Laboratory

DNA Library Arrayed by: The I.M.A.G.E. Consortium (LNL)

DNA sequencing by: Agencourt Bioscience Corporation

Clone distribution: MGC clone distribution information can be

found through the I.M.A.G.E. Consortium/LNL at:

<http://image.llnl.gov>

Plate: IRBK1 row: 9 column: 09

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High quality sequence stop: 478.

Location/Qualifiers

1. 478

/organism="Homo sapiens"

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/lab_host="pDHSa (T1 phage-resistant)"

/clone_lib="NIH_MGC_195"

/note="Vector: pDNR-Dual; Site_1: loxp-SalI; Site_2:

loxP-HindIII; Clones from this library have been

PCR-amplified using gene-specific primers to contain the

complete open reading frame (based on known gene sequences

available from NCBI's RefSeq). Template for PCR is cDNA

derived from either pooled cytoplasmic polyA RNA from 30

cells lines or pooled total RNA from 10 different tissues

(from BD Biosciences/Clontech and Washington University). PCR products are directionally cloned into the loxp sites of the pDNR-Dual vector. Library constructed by Dr. Narayan Bhat, Earl Bere III and Hongling Liao (Gene Expression Laboratory, Research Technology Program, SAIC Frederick, NCI-Frederick, Frederick, MD 21702). For information on which gene each clone represents, please visit our anonymous ftp site at ftp://image.llnl.gov/image/rearranged_plates/IRBK.presv.dat
a Note: this is a NIH_MGC Library."

ORIGIN

Query Match 5.5%; Score 22; DB 6; Length 478;
Best Local Similarity 100.0%; Pred. No. 3.9;
Matches 22; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 17 ATTGAGTTGCTAGCTCTTGG 38
|||||
Db 61 ATTGAGTTGCTAGCTCTTGG 82

Search completed: August 9, 2005, 00:13:19
Job time : 1707.67 secs

GenCore version 5.1.6
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OM nucleic - nucleic search, using sw model

Run on: August 7, 2005, 08:50:30 ; Search time 81.8667 Seconds
(without alignments)
8034.812 Million cell updates/sec

Title: US-10-787-382-7
Perfect score: 402
Sequence: 1 atgagaatgctctgaatt.....ccgagtcgaccgcgaagt 402

Scoring table: IDENTITY NUC
Gapop 10.0, Gapext 1.0

Searched: 1202784 seqs, 818138359 residues

Total number of hits satisfying chosen parameters: 2405568

Minimum DB seq length: 0
Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%
Maximum Match 100%

Listing first 45 summaries

Database : Issued Patents NA: *
1: /cgn2_6/ptodata/1/ina/5A_COMB.seq: *
2: /cgn2_6/ptodata/1/ina/5B_COMB.seq: *
3: /cgn2_6/ptodata/1/ina/6A_COMB.seq: *
4: /cgn2_6/ptodata/1/ina/6B_COMB.seq: *
5: /cgn2_6/ptodata/1/ina/PTUS_COMB.seq: *
6: /cgn2_6/ptodata/1/ina/backfile1.seq: *

Pred. No. is the number of results predicted by chance to have a
score greater than or equal to the score of the result being printed,
and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	Query Match	Length	ID	Description
1	402	100.0	402	US-09-322-409-83	Sequence 83, Appl
2	402	100.0	402	US-09-322-409-84	Sequence 84, Appl
3	402	100.0	402	US-09-451-527-83	Sequence 83, Appl
4	402	100.0	402	US-09-451-527-84	Sequence 84, Appl
5	402	100.0	610	US-09-322-409-80	Sequence 80, Appl
6	402	100.0	610	US-09-322-409-82	Sequence 82, Appl
7	402	100.0	610	US-09-451-527-80	Sequence 80, Appl
8	402	100.0	610	US-09-451-527-82	Sequence 82, Appl
9	398.8	99.2	405	US-09-371-615A-1	Sequence 1, Appl
10	345	85.8	345	US-09-322-409-85	Sequence 85, Appl
11	345	85.8	345	US-09-322-409-87	Sequence 87, Appl
12	345	85.8	345	US-09-451-527-85	Sequence 85, Appl
13	345	85.8	345	US-09-451-527-87	Sequence 87, Appl
14	277.2	69.0	816	US-09-079-839-2	Sequence 2, Appl
15	277.2	68.6	816	US-09-023-655-1236	Sequence 1236, Ap
16	206.4	51.3	1534	US-08-629-643A-4	Sequence 4, Appl
17	206.4	51.3	1534	US-09-155-884-4	Sequence 4, Appl
18	206.2	51.3	377	US-09-180-864-1	Sequence 1, Appl
19	178.4	44.4	375	US-09-556-818-33	Sequence 33, Appl
20	175.6	43.7	357	US-09-556-818-35	Sequence 35, Appl
21	169.2	42.1	381	US-09-556-818-27	Sequence 27, Appl
22	166.4	41.4	399	US-09-556-818-39	Sequence 39, Appl
23	166	41.3	444	US-09-556-818-43	Sequence 43, Appl
24	165.6	41.2	375	US-09-556-818-37	Sequence 37, Appl
25	161.6	40.2	393	US-09-556-818-41	Sequence 41, Appl
26	160.4	39.9	393	US-09-556-818-31	Sequence 31, Appl
27	159.2	39.6	375	US-09-556-818-29	Sequence 29, Appl

28	148.4	36.9	351	4	US-09-556-818-51	Sequence 51, Appl
29	145	36.1	333	4	US-09-556-818-55	Sequence 55, Appl
30	144.8	36.0	375	4	US-09-556-818-45	Sequence 45, Appl
31	144.8	36.0	438	4	US-09-556-818-59	Sequence 59, Appl
32	141.8	35.3	387	4	US-09-556-818-57	Sequence 57, Appl
33	140.8	35.0	369	4	US-09-556-818-53	Sequence 53, Appl
34	125.6	31.2	369	4	US-09-556-818-47	Sequence 47, Appl
35	123.6	30.7	387	4	US-09-556-818-49	Sequence 49, Appl
36	99.4	24.7	3230	3	US-09-280-799-78	Sequence 78, Appl
37	99.4	24.7	3230	6	US-09-280-799-78	Sequence 78, Appl
38	99.4	24.7	3230	6	5324640-1	Patent No. 5324640
39	90.6	22.5	6727	3	US-08-629-643A-5	Sequence 5, Appl
40	90.6	22.5	6727	3	US-09-280-799-1	Sequence 1, Appl
41	90.6	22.5	6727	3	US-09-155-884-5	Sequence 5, Appl
42	45.8	11.4	57	4	US-09-556-818-61	Sequence 61, Appl
43	40.2	10.0	47	1	US-08-466-852-2	Sequence 2, Appl
44	38	9.5	7218	1	US-08-232-463-14	Sequence 14, Appl
45	35.4	8.8	87352	4	US-09-949-016-12053	Sequence 12053, A

ALIGNMENTS

RESULT 1
US-09-322-409-83
Sequence 83, Application US/09322409
Patent No. 6471957
GENERAL INFORMATION:
APPLICANT: Shim, Gek-Ke
APPLICANT: Yang, Shumlin
APPLICANT: Drelitz, Matthew J.
APPLICANT: Wonderling, Remani S.
TITLE OF INVENTION: CANINE AND FELINE IMMUNOREGULATORY PROTEINS, NUCLEIC
FILE REFERENCE: IM-2-CI
CURRENT APPLICATION NUMBER: US/09/322,409
CURRENT FILING DATE: 1999-05-28
EARLIER APPLICATION NUMBER: 60/087,306
EARLIER FILING DATE: 1998-05-29
NUMBER OF SEQ ID NOS: 154
SOFTWARE: PatentIn Ver. 2.0
SEQ ID NO 83
LENGTH: 402
TYPE: DNA
ORGANISM: Canis familiaris
US-09-322-409-83
Query Match
Best Local Similarity 100.0%; Pred. No. 7.5e-123;
Matches 402; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
QY 1 ATGAGATGCTTCTGAAATTGAGTTTCTAGCTCTTGCGGCTGCTATGTTTCTGCTTT 60
DB 1 ATGAGATGCTTCTGAAATTGAGTTTCTAGCTCTTGCGGCTGCTATGTTTCTGCTTT 60
QY 61 GCTTTAAAAATCCCATGATAGACTGTGCGAGAGCCTTGAACTGCTGCTCAT 120
DB 61 GCTTTAAAAATCCCATGATAGACTGTGCGAGAGCCTTGAACTGCTGCTCAT 120
QY 61 GCTTTAAAAATCCCATGATAGACTGTGCGAGAGCCTTGAACTGCTGCTCAT 120
DB 61 GCTTTAAAAATCCCATGATAGACTGTGCGAGAGCCTTGAACTGCTGCTCAT 120
QY 121 CGAAGTGGCTGATAGCGAGTGGAGACCTGATGATTCCTGCTGAAATTAATCAAC 180
DB 121 CGAAGTGGCTGATAGCGAGTGGAGACCTGATGATTCCTGCTGAAATTAATCAAC 180
QY 181 CAATGTCATTAAGAAAGTTTTCAGGATATAGACATTTGAAGAACCAATGCTCCAC 240
DB 181 CAATGTCATTAAGAAAGTTTTCAGGATATAGACATTTGAAGAACCAATGCTCCAC 240
QY 241 GGGAGGCTGTGATTAACATTTCCAACTGCTTTAATAAAGAACATAGAGGC 300
DB 241 GGGAGGCTGTGATTAACATTTCCAACTGCTTTAATAAAGAACATAGAGGC 300
QY 301 CAAAAAAGGCTGCGAGAGAAAGATGAGAGTGA CAAAGTCTTGAAGTCACTAGCTGCA 360
DB 301 CAAAAAAGGCTGCGAGAGAAAGATGAGAGTGA CAAAGTCTTGAAGTCACTAGCTGCA 360

Db 301 CAAAAAAGGTGTGACGAGAAAGATGAGAGTGAACAAAGTCTAGACTACCTGCAA 360
QY 361 GATATTTCTGTGTATTAATTAACCCGAGTGGACACCGGAAAGT 402
Db 361 GATATTTCTGTGTATTAATTAACCCGAGTGGACACCGGAAAGT 402

RESULT 2
US-09-322-409-84/c
Sequence 84, Application US/09322409
Patent No. 6471957
GENERAL INFORMATION:

APPLICANT: Sim, Gek-Kee
APPLICANT: Yang, Shumlin
APPLICANT: Drelitz, Matthew J.
APPLICANT: Wonderling, Ramani S.
TITLE OF INVENTION: CANINE AND FELINE IMMUNOREGULATORY PROTEINS, NUCLEIC
TITLE OF INVENTION: ACID MOLECULES, AND USES THEREOF
FILE REFERENCE: IM-2-C1
CURRENT APPLICATION NUMBER: US/09/322,409
CURRENT FILING DATE: 1999-05-28
EARLIER APPLICATION NUMBER: 60/087,306
EARLIER FILING DATE: 1998-05-29
NUMBER OF SEQ ID NOS: 154
SOFTWARE: PatentIn Ver. 2.0
SEQ ID NO 84
LENGTH: 402
TYPE: DNA
ORGANISM: Canis familiaris
US-09-322-409-84

Query Match 100.0%; Score 402; DB 4; Length 402;
Best Local Similarity 100.0%; Pred. No. 7, 5e-123;
Matches 402; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 ATGAGATGCTTCTGAATTTGAGTTTCTAGCTCTTGGGCTGCTATGTTTCTGCTTT 60
Db 402 ATGAGATGCTTCTGAATTTGAGTTTCTAGCTCTTGGGCTGCTATGTTTCTGCTTT 343
QY 61 GCTGTAGAAAATCCCATGATATAGACTGTGGCAGAGACCTTGACACTGCTCCACTCAT 120
Db 342 GCTGTAGAAAATCCCATGATATAGACTGTGGCAGAGACCTTGACACTGCTCCACTCAT 283
QY 121 CGAAGCTGGCTGATAGGCGATGGGAACCTGATGATTCCTACTCCTGAAAAATAAATCAC 180
Db 282 CGAAGCTGGCTGATAGGCGATGGGAACCTGATGATTCCTACTCCTGAAAAATAAATCAC 223
QY 181 CAACGTGCACTTAAGAAGTTTTCAGGCTATAGACATTTGAAGAACCAAACTGCCAC 240
Db 222 CAACGTGCACTTAAGAAGTTTTCAGGCTATAGACATTTGAAGAACCAAACTGCCAC 163
QY 241 GGGAGGCTGTGATTAATCTATTCCTTAATTAATAAAGAACATAGAGCGC 300
Db 162 GGGAGGCTGTGATTAATCTATTCCTTAATTAATAAAGAACATAGAGCGC 103
QY 301 CAAAAAAGGTGTGACGAGAAAGATGAGAGTGAACAAAGTTCTAGACTACCTGCAA 360
Db 102 CAAAAAAGGTGTGACGAGAAAGATGAGAGTGAACAAAGTTCTAGACTACCTGCAA 43
QY 361 GATATTTCTGTGTATTAATTAACCCGAGTGGACACCGGAAAGT 402
Db 42 GATATTTCTGTGTATTAATTAACCCGAGTGGACACCGGAAAGT 1

RESULT 3
US-09-451-527-83
Sequence 83, Application US/09451527
Patent No. 6482403
GENERAL INFORMATION:

APPLICANT: Sim, Gek-Kee
APPLICANT: Yang, Shumlin
APPLICANT: Drelitz, Matthew J.
APPLICANT: Wonderling, Ramani S.

FILE OF INVENTION: CANINE AND FELINE IMMUNOREGULATORY PROTEINS, NUCLEIC
FILE REFERENCE: IM-2-C2
CURRENT APPLICATION NUMBER: US/09/451,527
CURRENT FILING DATE: 1999-12-01
EARLIER APPLICATION NUMBER: 09/322,409
EARLIER FILING DATE: 1999-05-28
EARLIER APPLICATION NUMBER: 60/087,306
EARLIER FILING DATE: 1998-05-29
NUMBER OF SEQ ID NOS: 174
SOFTWARE: PatentIn Ver. 2.0
SEQ ID NO 83
LENGTH: 402
TYPE: DNA
ORGANISM: Canis familiaris
US-09-451-527-83

Query Match 100.0%; Score 402; DB 4; Length 402;
Best Local Similarity 100.0%; Pred. No. 7, 5e-123;
Matches 402; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 ATGAGATGCTTCTGAATTTGAGTTTCTAGCTCTTGGGCTGCTATGTTTCTGCTTT 60
Db 1 ATGAGATGCTTCTGAATTTGAGTTTCTAGCTCTTGGGCTGCTATGTTTCTGCTTT 60
QY 61 GCTGTAGAAAATCCCATGATATAGACTGTGGCAGAGACCTTGACACTGCTCCACTCAT 120
Db 61 GCTGTAGAAAATCCCATGATATAGACTGTGGCAGAGACCTTGACACTGCTCCACTCAT 120
QY 121 CGAAGCTGGCTGATAGGCGATGGGAACCTGATGATTCCTACTCCTGAAAAATAAATCAC 180
Db 121 CGAAGCTGGCTGATAGGCGATGGGAACCTGATGATTCCTACTCCTGAAAAATAAATCAC 180
QY 181 CAACGTGCACTTAAGAAGTTTTCAGGCTATAGACATTTGAAGAACCAAACTGCCAC 240
Db 181 CAACGTGCACTTAAGAAGTTTTCAGGCTATAGACATTTGAAGAACCAAACTGCCAC 240
QY 241 GGGAGGCTGTGATTAATCTATTCCTTAATTAATAAAGAACATAGAGCGC 300
Db 241 GGGAGGCTGTGATTAATCTATTCCTTAATTAATAAAGAACATAGAGCGC 300
QY 301 CAAAAAAGGTGTGACGAGAAAGATGAGAGTGAACAAAGTTCTAGACTACCTGCAA 360
Db 301 CAAAAAAGGTGTGACGAGAAAGATGAGAGTGAACAAAGTTCTAGACTACCTGCAA 360
QY 361 GATATTTCTGTGTATTAATTAACCCGAGTGGACACCGGAAAGT 402
Db 361 GATATTTCTGTGTATTAATTAACCCGAGTGGACACCGGAAAGT 402

RESULT 4
US-09-451-527-84/c
Sequence 84, Application US/09451527
Patent No. 6482403
GENERAL INFORMATION:

APPLICANT: Sim, Gek-Kee
APPLICANT: Yang, Shumlin
APPLICANT: Drelitz, Matthew J.
APPLICANT: Wonderling, Ramani S.
TITLE OF INVENTION: CANINE AND FELINE IMMUNOREGULATORY PROTEINS, NUCLEIC
TITLE OF INVENTION: ACID MOLECULES, AND USES THEREOF
FILE REFERENCE: IM-2-C2
CURRENT APPLICATION NUMBER: US/09/451,527
CURRENT FILING DATE: 1999-12-01
EARLIER APPLICATION NUMBER: 09/322,409
EARLIER FILING DATE: 1999-05-28
EARLIER APPLICATION NUMBER: 60/087,306
EARLIER FILING DATE: 1998-05-29
NUMBER OF SEQ ID NOS: 174
SOFTWARE: PatentIn Ver. 2.0
SEQ ID NO 84
LENGTH: 402
TYPE: DNA

ORGANISM: Canis familiaris
US-09-451-527-84

Query Match 100.0%; Score 402; DB 4; Length 402;
Best Local Similarity 100.0%; Pred. No. 7.5e-123;
Matches 402; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 ATGAGATGCTTCTGAAATTTGAGTTTCTAGCTCTTGAGGCTGCTATGTTTCTGCTTT 60
DB 402 ATGAGATGCTTCTGAAATTTGAGTTTCTAGCTCTTGAGGCTGCTATGTTTCTGCTTT 343
QY 61 GCTGTAGAAAATCCCATGAATAGACTGTGTCAGAGACCTTGACATCTGCTCCATCAT 120
DB 342 GCTGTAGAAAATCCCATGAATAGACTGTGTCAGAGACCTTGACATCTGCTCCATCAT 283
QY 121 CAAACTGGCTGATAGGCGATGAGACCTGATGATCTTCTACTCTGTAATAATAAATCAC 180
DB 282 CGAATCTGGCTGATAGGCGATGAGACCTGATGATCTTCTACTCTGTAATAATAAATCAC 223
QY 181 CAACTGTGCAATTAAGAAGTTTTCAGGGTATAGACATTAAGAACAACCTGCCAC 240
DB 222 CAACTGTGCAATTAAGAAGTTTTCAGGGTATAGACATTAAGAACAACCTGCCAC 163
QY 241 GGGAGGCTGTGATAACTATTCAAAACCTGCTTTAATAAAGAACAATAGAGCGC 300
DB 162 GGGAGGCTGTGATAACTATTCAAAACCTGCTTTAATAAAGAACAATAGAGCGC 103
QY 301 CAAAAAAGGTGTGCGAGGAAAGATGAGAGTGAACAAAGTCTAGACTCTGCA 360
DB 102 CAAAAAAGGTGTGCGAGGAAAGATGAGAGTGAACAAAGTCTAGACTCTGCA 43
QY 361 GATTTCTGTGTATTAACACCGAGTGAACCGAAGT 402
DB 42 GATTTCTGTGTATTAACACCGAGTGAACCGAAGT 1

RESULT 5

US-09-322-409-80
Sequence 80, Application US/09322409
Patent No. 6471957
GENERAL INFORMATION:
APPLICANT: Sim, Gek-Ke
APPLICANT: Yang, Shumin
APPLICANT: Dreitz, Matthew J.
APPLICANT: Wonderling, Ramani S.
TITLE OF INVENTION: CANINE AND FELINE IMMUNOREGULATORY PROTEINS, NUCLEIC
FILE REFERENCE: IM-2-C1
CURRENT APPLICATION NUMBER: US/09/322,409
CURRENT FILING DATE: 1999-05-28
EARLIER APPLICATION NUMBER: 60/087,306
EARLIER FILING DATE: 1998-05-29
NUMBER OF SEQ ID NOS: 154
SOFTWARE: Patent Ver. 2.0
SEQ ID NO 80
LENGTH: 610
TYPE: DNA
ORGANISM: Canis familiaris
FEATURE:
NAME/KEY: CDS
LOCATION: (129)..(430)
US-09-322-409-80

Query Match 100.0%; Score 402; DB 4; Length 610;
Best Local Similarity 100.0%; Pred. No. 9.4e-123;
Matches 402; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 ATGAGATGCTTCTGAAATTTGAGTTTCTAGCTCTTGAGGCTGCTATGTTTCTGCTTT 60
DB 29 ATGAGATGCTTCTGAAATTTGAGTTTCTAGCTCTTGAGGCTGCTATGTTTCTGCTTT 88
QY 61 GCTGTAGAAAATCCCATGAATAGACTGTGTCAGAGACCTTGACATCTGCTCCATCAT 120

DB 89 GCTGTAGAAAATCCCATGAATAGACTGTGTCAGAGACCTTGACATCTGCTCCATCAT 148
QY 121 CGAATCTGGCTGATAGGCGATGAGAACTGATGATTCCTACTCTGTAATAAATCAC 180
DB 149 CGAATCTGGCTGATAGGCGATGAGAACTGATGATTCCTACTCTGTAATAAATCAC 208
QY 181 CAACTGTGCAATTAAGAAGTTTTCAGGGTATAGACATTAAGAACAACCTGCCAC 240
DB 209 CAACTGTGCAATTAAGAAGTTTTCAGGGTATAGACATTAAGAACAACCTGCCAC 268
QY 241 GGGAGGCTGTGATTAACATTTCCAAAACCTGCTTTAATAAAGAACAATGAGCGC 300
DB 269 GGGAGGCTGTGATTAACATTTCCAAAACCTGCTTTAATAAAGAACAATGAGCGC 328
QY 301 CAAAAAAGGTGTGCGAGGAAAGTGAAGTGAAGTGAAGTGAAGTGAAGTGAAGTGAAGT 360
DB 329 CAAAAAAGGTGTGCGAGGAAAGTGAAGTGAAGTGAAGTGAAGTGAAGTGAAGTGAAGT 388
QY 361 GATTTCTGTGTATTAACACCGAGTGAACCGAAGT 402
DB 389 GATTTCTGTGTATTAACACCGAGTGAACCGAAGT 430

RESULT 6

US-09-322-409-82/c
Sequence 82, Application US/09322409
Patent No. 6471957
GENERAL INFORMATION:
APPLICANT: Sim, Gek-Ke
APPLICANT: Yang, Shumin
APPLICANT: Dreitz, Matthew J.
APPLICANT: Wonderling, Ramani S.
TITLE OF INVENTION: CANINE AND FELINE IMMUNOREGULATORY PROTEINS, NUCLEIC
FILE REFERENCE: IM-2-C1
CURRENT APPLICATION NUMBER: US/09/322,409
CURRENT FILING DATE: 1999-05-28
EARLIER APPLICATION NUMBER: 60/087,306
EARLIER FILING DATE: 1998-05-29
NUMBER OF SEQ ID NOS: 154
SOFTWARE: Patent Ver. 2.0
SEQ ID NO 82
LENGTH: 610
TYPE: DNA
ORGANISM: Canis familiaris
US-09-322-409-82

Query Match 100.0%; Score 402; DB 4; Length 610;
Best Local Similarity 100.0%; Pred. No. 9.4e-123;
Matches 402; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 ATGAGATGCTTCTGAAATTTGAGTTTCTAGCTCTTGAGGCTGCTATGTTTCTGCTTT 60
DB 582 ATGAGATGCTTCTGAAATTTGAGTTTCTAGCTCTTGAGGCTGCTATGTTTCTGCTTT 523
QY 61 GCTGTAGAAAATCCCATGAATAGACTGTGTCAGAGACCTTGACATCTGCTCCATCAT 120
DB 522 GCTGTAGAAAATCCCATGAATAGACTGTGTCAGAGACCTTGACATCTGCTCCATCAT 463
QY 121 CAACTGTGCAATTAAGAAGTTTTCAGGGTATAGACATTAAGAACAACCTGCCAC 180
DB 462 CAACTGTGCAATTAAGAAGTTTTCAGGGTATAGACATTAAGAACAACCTGCCAC 403
QY 181 CAACTGTGCAATTAAGAAGTTTTCAGGGTATAGACATTAAGAACAACCTGCCAC 240
DB 402 CAACTGTGCAATTAAGAAGTTTTCAGGGTATAGACATTAAGAACAACCTGCCAC 343
QY 241 GGGAGGCTGTGATTAACATTTCCAAAACCTGCTTTAATAAAGAACAATGAGCGC 300
DB 342 GGGAGGCTGTGATTAACATTTCCAAAACCTGCTTTAATAAAGAACAATGAGCGC 283
QY 301 CAAAAAAGGTGTGCGAGGAAAGTGAAGTGAAGTGAAGTGAAGTGAAGTGAAGTGAAGT 360

Db 282 CAAAAAAGGTGTGCGAGGAAAGATGGAAGTCAAAAGTTCTAGACTACCTGCAA 223
Qy 361 GATATTTCTGTGTATTAACACCGAGTGCACCGGAAAGT 402
Db 222 GATATTTCTGTGTATTAACACCGAGTGCACCGGAAAGT 181

RESULT 7
US-09-451-527-80
Sequence 80, Application US/09451527
Patent No. 6482403

GENERAL INFORMATION:
APPLICANT: Sim, Gek-Ke
APPLICANT: Yang, Shunlin
APPLICANT: Drelitz, Matthew J.
APPLICANT: Wondertling, Ramani S.
TITLE OF INVENTION: CANINE AND FELINE IMMUNOREGULATORY PROTEINS, NUCLEIC
TITLE OF INVENTION: ACID MOLECULES, AND USES THEREOF
FILE REFERENCE: IM-2-C2
CURRENT APPLICATION NUMBER: US/09/451,527
CURRENT FILING DATE: 1999-12-01
EARLIER APPLICATION NUMBER: 09/322,409
EARLIER FILING DATE: 1999-05-28
EARLIER APPLICATION NUMBER: 60/087,306
EARLIER FILING DATE: 1998-05-29
NUMBER OF SEQ ID NOS: 174
SOFTWARE: PatentIn Ver. 2.0
SEQ ID NO 80
LENGTH: 610
TYPE: DNA
ORGANISM: Canis familiaris
FEATURE:
NAME/KEY: CDS
LOCATION: (29)..(430)
US-09-451-527-80

Query Match 100.0%; Score 402; DB 4; Length 610;
Best Local Similarity 100.0%; Pred. No. 9,4e-123;
Matches 402; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 ATGAGATGCTTCTGAATTTGAGTTGCTAGCTCTTGAGGCGTGCCTATGTTTCTGCTTT 60
Db 29 ATGAGATGCTTCTGAATTTGAGTTGCTAGCTCTTGAGGCGTGCCTATGTTTCTGCTTT 88
Qy 61 GCTGTAGAAAATCCCATGAATAGACTGTGCGAGAGACTTGACACTGCTCTCCACTCAT 120
Db 89 GCTGTAGAAAATCCCATGAATAGACTGTGCGAGAGACTTGACACTGCTCTCCACTCAT 148
Qy 121 CGAAGTGGCTGATAGGCGATGGAACTGATGATCTTCTACTCTGTAATAATAATCAC 180
Db 149 CGAAGTGGCTGATAGGCGATGGAACTGATGATCTTCTACTCTGTAATAATAATCAC 208
Qy 181 CAACGTGCACTTAAGAAGTTTTCAGGGTATAGACATTGAAGAACCAACGCCAC 240
Db 209 CAACGTGCACTTAAGAAGTTTTCAGGGTATAGACATTGAAGAACCAACGCCAC 268
Qy 241 GGGGAGGCTGTGATTAACCTATTCAAAACCTGTCTTTAATAAAGAACACATAGAGCGC 300
Db 269 GGGGAGGCTGTGATTAACCTATTCAAAACCTGTCTTTAATAAAGAACACATAGAGCGC 328
Qy 301 CAAAAAAGGTGTGCGAGGAAAGATGGAAGTGAACAAAGTTCTAGACTACCTGCAA 360
Db 329 CAAAAAAGGTGTGCGAGGAAAGATGGAAGTGAACAAAGTTCTAGACTACCTGCAA 388
Qy 361 GATATTTCTGTGTATTAACACCGAGTGCACCGGAAAGT 402
Db 389 GATATTTCTGTGTATTAACACCGAGTGCACCGGAAAGT 430

RESULT 8
US-09-451-527-82/c
Sequence 82, Application US/09451527
Patent No. 6482403

GENERAL INFORMATION:
APPLICANT: Sim, Gek-Ke
APPLICANT: Yang, Shunlin
APPLICANT: Drelitz, Matthew J.
APPLICANT: Wondertling, Ramani S.
TITLE OF INVENTION: CANINE AND FELINE IMMUNOREGULATORY PROTEINS, NUCLEIC
TITLE OF INVENTION: ACID MOLECULES, AND USES THEREOF
FILE REFERENCE: IM-2-C2
CURRENT APPLICATION NUMBER: US/09/451,527
CURRENT FILING DATE: 1999-12-01
EARLIER APPLICATION NUMBER: 09/322,409
EARLIER FILING DATE: 1999-05-28
EARLIER APPLICATION NUMBER: 60/087,306
EARLIER FILING DATE: 1998-05-29
NUMBER OF SEQ ID NOS: 174
SOFTWARE: PatentIn Ver. 2.0
SEQ ID NO 82
LENGTH: 610
TYPE: DNA
ORGANISM: Canis familiaris
US-09-451-527-82

Query Match 100.0%; Score 402; DB 4; Length 610;
Best Local Similarity 100.0%; Pred. No. 9,4e-123;
Matches 402; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 ATGAGATGCTTCTGAATTTGAGTTGCTAGCTCTTGAGGCGTGCCTATGTTTCTGCTTT 60
Db 582 ATGAGATGCTTCTGAATTTGAGTTGCTAGCTCTTGAGGCGTGCCTATGTTTCTGCTTT 523
Qy 61 GCTGTAGAAAATCCCATGAATAGACTGTGCGAGAGACTTGACACTGCTCTCCACTCAT 120
Db 522 GCTGTAGAAAATCCCATGAATAGACTGTGCGAGAGACTTGACACTGCTCTCCACTCAT 463
Qy 121 CGAAGTGGCTGATAGGCGATGGAACTGATGATCTTCTACTCTGTAATAATAATCAC 180
Db 462 CGAAGTGGCTGATAGGCGATGGAACTGATGATCTTCTACTCTGTAATAATAATCAC 403
Qy 181 CAACGTGCACTTAAGAAGTTTTCAGGGTATAGACATTGAAGAACCAACGCCAC 240
Db 402 CAACGTGCACTTAAGAAGTTTTCAGGGTATAGACATTGAAGAACCAACGCCAC 343
Qy 241 GGGGAGGCTGTGATTAACCTATTCAAAACCTGTCTTTAATAAAGAACACATAGAGCGC 300
Db 342 GGGGAGGCTGTGATTAACCTATTCAAAACCTGTCTTTAATAAAGAACACATAGAGCGC 283
Qy 301 CAAAAAAGGTGTGCGAGGAAAGATGGAAGTGAACAAAGTTCTAGACTACCTGCAA 360
Db 282 CAAAAAAGGTGTGCGAGGAAAGATGGAAGTGAACAAAGTTCTAGACTACCTGCAA 223
Qy 361 GATATTTCTGTGTATTAACACCGAGTGCACCGGAAAGT 402
Db 222 GATATTTCTGTGTATTAACACCGAGTGCACCGGAAAGT 181

RESULT 9
US-09-371-615A-1
Sequence 1, Application US/09371615A
Patent No. 6537781
GENERAL INFORMATION:
APPLICANT: IDEXX LABORATORIES
TITLE OF INVENTION: METHODS AND COMPOSITIONS CONCERNING
TITLE OF INVENTION: CANINE INTERLEUKIN 5
FILE REFERENCE: 03604001700US00
CURRENT APPLICATION NUMBER: US/09/371,615A
CURRENT FILING DATE: 1999-08-10
NUMBER OF SEQ ID NOS: 8
SOFTWARE: FastSeq for Windows Version 3.0
SEQ ID NO 1
LENGTH: 405
TYPE: DNA
ORGANISM: Canis familiaris
US-09-371-615A-1

Query Match 99.2%; Score 398.8; DB 4; Length 405;
Best Local Similarity 99.5%; Pred. No. 8.6e-122;
Matches 400; Conservative 0; Mismatches 2; Indels 0; Gaps 0;

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QY 1 ATGGAATGCTTCTGAATTTGAGTTTGTAGCTCTTGGGGCTGCTATGTTTCTGCCCTT 60
DB 1 ATGGAATGCTTCTGAATTTGAGTTTGTAGCTCTTGGGGCTGCTATGTTTCTGCCCTT 60
QY 61 GCTGTAGAAAATCCCATGAAATAGACTGTGTGCAAGACCTTGAACATGCTCTCCACTCAT 120
DB 61 GCTGTAGAAAATCCCATGAAATAGACTGTGTGCAAGACCTTGAACATGCTCTCCACTCAT 120
QY 121 CGAAGTGGCTGATAGGCGATGGGAACTGTATGATTTCTTACCTCCGAAAATAAAATGAC 180
DB 121 CGAAGTGGCTGATAGGCGATGGGAACTGTATGATTTCTTACCTCCGAAAATAAAATGAC 180
QY 181 CAACGTGCAATTAAGAAGTTTTCAGGGTATAGACATTTGAAGAACCAACTGCCAC 240
DB 181 CAACGTGCAATTAAGAAGTTTTCAGGGTATAGACATTTGAAGAACCAACTGCCAC 240
QY 241 GGGGAGCTGTGATTAACCTATTTCCAAAACCTTCTTTAATAAAGAACATAGAGCC 300
DB 241 GGGGAGCTGTGATTAACCTATTTCCAAAACCTTCTTTAATAAAGAACATAGAGCC 300
QY 301 CAAAAAAGAGGTGCGAGAGAAAGATGAGAGTGAACAAAGTTCTTAGACTACCTGCA 360
DB 301 CAAAAAAGAGGTGCGAGAGAAAGATGAGAGTGAACAAAGTTCTTAGACTACCTGCA 360
QY 361 GTATTTCTTGCTGTATTAACACCGAGTGAACCCGAAAGT 402
DB 361 GTATTTCTTGCTGTATTAACACCGAGTGAACCCGAAAGT 402
```

RESULT 10

US-09-322-409-85
Sequence 85, Application US/09322409
Patent No. 6471957
GENERAL INFORMATION:
APPLICANT: Sim, Gek-Kee
APPLICANT: Yang, Shumin
APPLICANT: Dreitz, Matthew J.
APPLICANT: Wonderling, Ramani S.
TITLE OF INVENTION: CANINE AND FELINE IMMUNOREGULATORY PROTEINS, NUCLEIC
TITLE OF INVENTION: ACID MOLECULES, AND USES THEREOF
FILE REFERENCE: IM-2-C1
CURRENT APPLICATION NUMBER: US/09/322,409
CURRENT FILING DATE: 1999-05-28
EARLIER APPLICATION NUMBER: 60/087,306
EARLIER FILING DATE: 1998-05-29
NUMBER OF SEQ ID NOS: 154
SOFTWARE: PatentIn Ver. 2.0
SEQ ID NO 85
LENGTH: 345
TYPE: DNA
ORGANISM: Canis familiaris
FEATURE:
NAME/KEY: CDS
LOCATION: (1)..(345)
US-09-322-409-85

Query Match 85.8%; Score 345; DB 4; Length 345;
Best Local Similarity 100.0%; Pred. No. 5.1e-104;
Matches 345; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

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QY 58 TTGCTGTAGAAAATCCCATGAAATAGACTGTGTGCAAGACCTTGAACATGCTCTCCACT 117
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QY 118 CATGCACTTGCTGATAGGCGATGGGAACTGTATGATTTCTTACCTCTGAAAATAAAAT 177
DB 61 CATGCACTTGCTGATAGGCGATGGGAACTGTATGATTTCTTACCTCTGAAAATAAAAT 177
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QY 238 CACGGGAGCTGTGATTAACCTATTTCCAAAACCTTCTTTAATAAAGAACATAGAG 297
DB 181 CACGGGAGCTGTGATTAACCTATTTCCAAAACCTTCTTTAATAAAGAACATAGAG 240
QY 298 CGCCAAAAAAGGTGTGAGAGGAAAGATGAGAGTGAACAAAGTTCTTAGACTACCTG 357
DB 241 CGCCAAAAAAGGTGTGAGAGGAAAGATGAGAGTGAACAAAGTTCTTAGACTACCTG 300
QY 358 CAAGTATTTCTTGCTGTATTAACACCGAGTGAACCCGAAAGT 402
DB 301 CAAGTATTTCTTGCTGTATTAACACCGAGTGAACCCGAAAGT 345
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RESULT 11
US-09-322-409-87/c
Sequence 87, Application US/09322409
Patent No. 6471957
GENERAL INFORMATION:
APPLICANT: Sim, Gek-Kee
APPLICANT: Yang, Shumin
APPLICANT: Dreitz, Matthew J.
APPLICANT: Wonderling, Ramani S.
TITLE OF INVENTION: CANINE AND FELINE IMMUNOREGULATORY PROTEINS, NUCLEIC
TITLE OF INVENTION: ACID MOLECULES, AND USES THEREOF
FILE REFERENCE: IM-2-C1
CURRENT APPLICATION NUMBER: US/09/322,409
CURRENT FILING DATE: 1999-05-28
EARLIER APPLICATION NUMBER: 60/087,306
EARLIER FILING DATE: 1998-05-29
NUMBER OF SEQ ID NOS: 154
SOFTWARE: PatentIn Ver. 2.0
SEQ ID NO 87
LENGTH: 345
TYPE: DNA
ORGANISM: Canis familiaris
US-09-322-409-87

Query Match 85.8%; Score 345; DB 4; Length 345;
Best Local Similarity 100.0%; Pred. No. 5.1e-104;
Matches 345; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

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QY 58 TTGCTGTAGAAAATCCCATGAAATAGACTGTGTGCAAGACCTTGAACATGCTCTCCACT 117
DB 345 TTGCTGTAGAAAATCCCATGAAATAGACTGTGTGCAAGACCTTGAACATGCTCTCCACT 286
QY 118 CATGCACTTGCTGATAGGCGATGGGAACTGTATGATTTCTTACCTCTGAAAATAAAAT 177
DB 285 CATGCACTTGCTGATAGGCGATGGGAACTGTATGATTTCTTACCTCTGAAAATAAAAT 226
QY 178 CACCACTGCAATTAAGAAGTTTTCAGGGTATAGACATTTGAAGAACCAACTGCC 237
DB 225 CACCACTGCAATTAAGAAGTTTTCAGGGTATAGACATTTGAAGAACCAACTGCC 166
QY 238 CACGGGAGCTGTGATTAACCTATTTCCAAAACCTTCTTTAATAAAGAACATAGAG 297
DB 165 CACGGGAGCTGTGATTAACCTATTTCCAAAACCTTCTTTAATAAAGAACATAGAG 106
QY 298 CGCCAAAAAAGGTGTGAGAGGAAAGATGAGAGTGAACAAAGTTCTTAGACTACCTG 357
DB 105 CGCCAAAAAAGGTGTGAGAGGAAAGATGAGAGTGAACAAAGTTCTTAGACTACCTG 46
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DB 45 CAAGTATTTCTTGCTGTATTAACACCGAGTGAACCCGAAAGT 1
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RESULT 12
US-09-451-527-85
Sequence 85, Application US/09451527


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; Patent No. 6482403
; GENERAL INFORMATION:
; APPLICANT: Sim, Gek-kee
; APPLICANT: Yang, Shumin
; APPLICANT: Drelitz, Matthew J.
; APPLICANT: Wonderling, Ramani S.
; TITLE OF INVENTION: CANINE AND FELINE IMMUNOREGULATORY PROTEINS, NUCLEIC
; FILE REFERENCE: IM-2-C2
; CURRENT APPLICATION NUMBER: US/09/451,527
; CURRENT FILING DATE: 1999-12-01
; EARLIER APPLICATION NUMBER: 09/322,409
; EARLIER FILING DATE: 1999-05-28
; EARLIER APPLICATION NUMBER: 60/087,306
; EARLIER FILING DATE: 1998-05-29
; NUMBER OF SEQ ID NOS: 174
; SOFTWARE: PatentIn Ver. 2.0
; SEQ ID NO 85
; LENGTH: 345
; TYPE: DNA
; ORGANISM: Canis familiaris
; FEATURE:
; NAME/KEY: CDS
; LOCATION: (1)..(345)
US-09-451-527-85

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Query Match      85.8%; Score 345; DB 4; Length 345;
Best Local Similarity 100.0%; Pred. No. 5.1e-104;
Matches 345; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

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Qy 58 TTTCCTGTAGAAAATCCCATGATATAGACTGTGTGCAAGACCTTGAACCTGCTTCCACT 117
Db 1 TTTCCTGTAGAAAATCCCATGATATAGACTGTGTGCAAGACCTTGAACCTGCTTCCACT 60
Qy 118 CATGAACTGTGCTGATAGAGGCGATGGAGAACTGATGATTCCTACTCCGAAAATATAAAT 177
Db 61 CATGAACTGTGCTGATAGAGGCGATGGAGAACTGATGATTCCTACTCCGAAAATATAAAT 120
Qy 178 CACCACTGTGCTATTAAGAAAGTTTTCAGGGTATAGACATTTGAAGAACCAAACTGCC 237
Db 121 CACCACTGTGCTATTAAGAAAGTTTTCAGGGTATAGACATTTGAAGAACCAAACTGCC 180
Qy 238 CACGGGAGGCTGTGATTAACCTATTCGAAACCTTTCTTAATATAAGAACACATGAG 297
Db 181 CACGGGAGGCTGTGATTAACCTATTCGAAACCTTTCTTAATATAAGAACACATGAG 240
Qy 298 CGCCAAAAGGAGGTGTGCAAGAGAAAGATGAGAGTGAACAAAGTCTAGACTACCTG 357
Db 241 CGCCAAAAGGAGGTGTGCAAGAGAAAGATGAGAGTGAACAAAGTCTAGACTACCTG 300
Qy 358 CAAGTATTTCTTGTGTATTAACACCGAGTGAACCCGAAAGT 402
Db 301 CAAGTATTTCTTGTGTATTAACACCGAGTGAACCCGAAAGT 345

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RESULT 13
US-09-451-527-87/c
; Sequence 87, Application US/09451527
; Patent No. 6482403
; GENERAL INFORMATION:

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; APPLICANT: Sim, Gek-kee
; APPLICANT: Yang, Shumin
; APPLICANT: Drelitz, Matthew J.
; APPLICANT: Wonderling, Ramani S.
; TITLE OF INVENTION: CANINE AND FELINE IMMUNOREGULATORY PROTEINS, NUCLEIC
; FILE REFERENCE: IM-2-C2
; CURRENT APPLICATION NUMBER: US/09/451,527
; CURRENT FILING DATE: 1999-12-01
; EARLIER APPLICATION NUMBER: 09/322,409
; EARLIER FILING DATE: 1999-05-28
; EARLIER APPLICATION NUMBER: 60/087,306
; EARLIER FILING DATE: 1998-05-29

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; NUMBER OF SEQ ID NOS: 174
; SOFTWARE: PatentIn Ver. 2.0
; SEQ ID NO 87
; LENGTH: 345
; TYPE: DNA
; ORGANISM: Canis familiaris
US-09-451-527-87

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Query Match      85.8%; Score 345; DB 4; Length 345;
Best Local Similarity 100.0%; Pred. No. 5.1e-104;
Matches 345; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

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Qy 58 TTTCCTGTAGAAAATCCCATGATATAGACTGTGTGCAAGACCTTGAACCTGCTTCCACT 117
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Qy 118 CATGAACTGTGCTGATAGAGGCGATGGAGAACTGATGATTCCTACTCCGAAAATATAAAT 177
Db 285 CATGAACTGTGCTGATAGAGGCGATGGAGAACTGATGATTCCTACTCCGAAAATATAAAT 226
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Db 225 CACCACTGTGCTATTAAGAAAGTTTTCAGGGTATAGACATTTGAAGAACCAAACTGCC 166
Qy 238 CACGGGAGGCTGTGATTAACCTATTCGAAACCTTTCTTAATATAAGAACACATGAG 297
Db 165 CACGGGAGGCTGTGATTAACCTATTCGAAACCTTTCTTAATATAAGAACACATGAG 106
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Qy 358 CAAGTATTTCTTGTGTATTAACACCGAGTGAACCCGAAAGT 402
Db 45 CAAGTATTTCTTGTGTATTAACACCGAGTGAACCCGAAAGT 1

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RESULT 14
US-09-079-839-2
; Sequence 2, Application US/09079839
; Patent No. 6048726
; GENERAL INFORMATION:

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; APPLICANT: Weltman, Joel K.
; APPLICANT: Karim, Ateeb S.
; TITLE OF INVENTION: INHIBITION OF EOSINOPHILIC INFLAMMATION
; FILE REFERENCE: 09998/002001
; CURRENT APPLICATION NUMBER: US/09/079,839
; CURRENT FILING DATE: 1998-05-15
; NUMBER OF SEQ ID NOS: 2
; SOFTWARE: FastSeq for Windows Version 3.0
; SEQ ID NO 2
; LENGTH: 816
; TYPE: DNA
; ORGANISM: Homo sapiens
US-09-079-839-2

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Query Match      69.0%; Score 277.2; DB 3; Length 816;
Best Local Similarity 80.6%; Pred. No. 2.2e-91;
Matches 324; Conservative 0; Mismatches 78; Indels 0; Gaps 0;

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Db 45 ATGAGATGCTTTGTAATTTGAGTTTGCTAGCTCTTGGGGCTGCTATGCTTTCTGCTTT 104
Qy 61 GCGTGAAGAAATCCCATGATATAGACTGTGTGCAAGACCTTGAACCTGCTCCACTCAT 120
Db 105 CCACAGAAATTTCCCAAGTGCATTTGGTAAAGACCTTGGCACTGCTTTCTACTCAT 164
Qy 121 CGAAGTGGCTGTAGGCGATGGGAACTGATGATTTCTACTCTGAAAATATAAATCAAC 180
Db 165 CGAAGTGGCTGTAGGCGATGGGAACTGATGATTTCTACTCTGAAAATATAAATCAAC 224
Qy 181 CAAGTGTGCTTAAAGAGTTTTCAGGGTATAGACATTTGAAGAACCAAACTGCCAC 240

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Db 225 CAACTGCTGCTGATGAAGAACTTTTCAGGGAATGACACCTGAGAGTCAAACTGTGCA 284
Qy 241 GGGGAGGCTGTGATTAACATATTCCTTAAATTAAGAACATAGAGCGC 300
Db 285 GGGGCTACTGTGAAAGACTATTCCTTAAATTAAGAAATACATTGACGCGC 344
Qy 301 CAAAAAAGGCTGTGAGAGAAAGATGAGAGTTCCTAGACTAGCTGCA 360
Db 345 CAAAAAAGGCTGTGAGAGAAAGATGAGAGTTCCTAGACTAGCTGCA 404
Qy 361 GATTTCTGTGATTAACACCGAGTGCACCGGAAGT 402
Db 405 GAGTTCTGTGTATGAACACCGAGTGCATATGAAAGT 446

RESULT 15
US-09-023-655-1236
; Sequence 1236, Application US/09023655
; Patent No. 6607879
; GENERAL INFORMATION:
; APPLICANT: Cocks, Benjamin G.
; APPLICANT: Susan G. Stuart
; TITLE OF INVENTION: COMPOSITION FOR THE DETECTION OF BLOOD CELL GENE
; NUMBER OF SEQUENCES: 1508
; CORRESPONDENCE ADDRESS:
; ADDRESS: INCYTE PHARMACEUTICALS, INC.
; STREET: 3174 PORTER DRIVE
; CITY: PALO ALTO
; STATE: CALIFORNIA
; COUNTRY: USA
; ZIP: 94304

COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Word Perfect 6.1 for Windows/MS-DOS 6.2
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/09/023,655
FILING DATE: HEREWITH
CLASSIFICATION:
PRIOR APPLICATION DATA:
APPLICATION NUMBER:
FILING DATE:
CLASSIFICATION:
ATTORNEY/AGENT INFORMATION:
NAME: Zeller, Karen J.
REGISTRATION NUMBER: 37,071
REFERENCE/DOCKET NUMBER: PA-0001 US
TELECOMMUNICATION INFORMATION:
TELEPHONE: (650) 855-0555
TELEFAX: (650) 845-4166
INFORMATION FOR SEQ ID NO: 1236:
SEQUENCE CHARACTERISTICS:
LENGTH: 816 base pairs
TYPE: nucleic acid
STRANDEDNESS: single
TOPOLOGY: linear
IMMEDIATE SOURCE:
LIBRARY: GENBANK
CLONE: g288309
US-09-023-655-1236

Query Match 68.6%, Score 275.6, DB 4, Length 816;
Best Local Similarity 80.3%, Pred. No. 7.6e-81;
Matches 323; Conservative 0; Mismatches 79; Indels 0; Gaps 0;

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Qy 61 GCTGTAGAAAATCCCATGAATAGACTGTGAGAGACCTTGACACTGCTCTCCATCAT 120
Db 105 CCCACAGAAATTCACCAAGTGCACTGTGAAAGAGACTTGGCACTGCTTCTACTCAT 164
Qy 121 GGAATGCTGTGATAGCGCATGAGAACCTGATGATTTCTTACTCTGAAAAATTAATCAC 180
Db 165 CGAATCTGTGTATGACCAATGAGACTCTGAGATTCCTGTTCTGTACATAAAAATCAC 224
Qy 181 CAACTGTCAATTAAGAAAGTTTTCAGGGTATAGACATTTGAAGAACAACTGCCAC 240
Db 225 CAACTGTCACTGAAGAAATCTTTCAGGAAATAGGCACTGAGAGTCAAACTGTGCA 284
Qy 241 GGGGAGGCTGTGATTAACATATTCCTTAAATTAAGAAACATAGAGCGC 300
Db 285 GGGGCTACTGTGAAAGACTATGAAATCTTCTTAAATTAAGAAATCATTTGACGCGC 344
Qy 301 CAAAAAAGGCTGTGAGAGAAAGATGAGAGTTCCTAGACTAGCTGCA 360
Db 345 CAAAAAAGGCTGTGAGAGAAAGATGAGAGTTCCTAGACTAGCTGCA 404
Qy 361 GATTTCTGTGATTAACACCGAGTGCACCGGAAGT 402
Db 405 GAGTTCTGTGTATGAACACCGAGTGCATATGAAAGT 446

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Job time: 81.8667 secs

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GenCore version 5.1.6
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OM nucleic - nucleic search, using sw model

Run on: August 7, 2005, 18:32:58 ; Search time 1936.8 Seconds
(without alignments)
10057.309 Million cell updates/sec

Title: US-10-787-382-7
Perfect score: 402
Sequence: 1 atgagatgccttcgaattc.....ccgagtcgacccgaaagt 402

Scoring table: IDENTITY_NUC
Gapop 10.0 , Gapext 1.0

Searched: 4708233 seqs, 24227607955 residues
Total number of hits satisfying chosen parameters: 9416466

Minimum DB seq length: 0
Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries

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1: gb_ha:*
2: gb_hcg:*
3: gb_in:*
4: gb_om:*
5: gb_ov:*
6: gb_pat:*
7: gb_ph:*
8: gb_pl:*
9: gb_pr:*
10: gb_ro:*
11: gb_scs:*
12: gb_gy:*
13: gb_un:*
14: gb_vl:*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	Query Match	Length	DB ID	Description
1	402	100.0	402	6	BD211560 Canine an
2	402	100.0	402	6	BD211561 Canine an
3	402	100.0	402	6	AR241538 Sequence
4	402	100.0	402	6	AR241539 Sequence
5	402	100.0	402	6	AR254494 Sequence
6	402	100.0	402	6	AR254495 Sequence
7	402	100.0	610	4	AF331919 Canis fam
8	402	100.0	610	6	BD211558 Canine an
9	402	100.0	610	6	BD211559 Canine an
10	402	100.0	610	6	AR241536 Sequence
11	402	100.0	610	6	AR241537 Sequence
12	402	100.0	610	6	AR254492 Sequence
13	402	100.0	610	6	AR254493 Sequence
14	398.8	99.2	405	6	AR300436 Sequence
15	398.8	99.2	405	6	AX083939 Sequence
16	345	85.8	345	6	BD211562 Canine an
17	345	85.8	345	6	BD211563 Canine an
18	345	85.8	345	6	AR241540 Sequence
19	345	85.8	345	6	AR241541 Sequence

20	345	85.8	345	6	AR254496 Sequence
c 21	345	85.8	345	6	AR254497 Sequence
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23	338.6	84.2	405	4	AF068770 Felis cat
24	335.4	83.4	405	4	ECU91947 Equus caball
25	329.8	82.0	356	4	AF091133 Canis fam
26	326.8	81.3	405	4	BTINTLEU5
27	326.8	81.3	529	4	SSC13452 Sus scrofa
28	325.2	80.9	405	4	SSC010088 Sus scrofa
29	316.2	78.7	520	4	CAU35038 Ovis aries
30	281.2	70.0	354	4	AF051372 Felis cat
31	277.2	69.0	405	9	AF294756 Saliml'i b
32	277.2	69.0	459	9	BC066282 Homo sapi
33	277.2	69.0	816	6	C0721603 Sequence
34	277.2	69.0	816	6	E01639
35	277.2	69.0	816	6	E13591
36	277.2	69.0	816	6	HS15R
37	275.6	68.6	816	6	AR380691 Sequence
38	275.6	68.6	816	9	HSBCDPIA
39	275.6	68.6	858	6	AX766521 Sequence
40	275.6	68.6	858	6	AX766523 Sequence
41	272.4	67.8	405	9	CEYINSA
42	270.8	67.4	405	9	MMU19848 Macaca mula
43	250	62.2	343	6	AX083948 Sequence
44	240.4	59.8	421	12	SYN1LSA
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ALIGNMENTS

RESULT 1	LOCUS	BD211560	402 bp	DNA	linear	PAT 17-JUN-2003
DEFINITION	Canine and feline immunoregulatory proteins, nucleic acid molecules and method of using the same.					
ACCESSION	BD211560					
VERSION	BD211560.1	GI:33021330				
KEYWORDS	JP 2002516104-A/66.					
SOURCE	JP 2002516104-A/66.					
ORGANISM	Canis familiaris (dog)					
REFERENCE	Canis familiaris					
AUTHORS	Sim,G., Yang,S., Dreitz,M.J. and Wonderling,R.S.					
TITLE	Canine and feline immunoregulatory proteins, nucleic acid molecules and method of using the same					
JOURNAL	Patent: JP 2002516104-A 66 04-JUN-2002;					
COMMENT	HESKA CORP					
OS	Canis familiaris (dog)					
PN	JP 2002516104-A/66					
PD	04-JUN-2002					
PF	28-MAY-1999 JP 2000551002					
PR	29-MAY-1998 US 60/087306					
PI	GEKKE SIM, SHUMIN YANG, MATTHEW J DREITZ, RAMANI S WONDERLING PC					
	C12N15/09,A61K31/7088,A61K38/00,A61K39/00,A61K39/395,					
	PC A61K39/395					
	PC A61K45/00,A61K48/00,A61P37/02,A61P37/04,C07K14/475,C07K14/535,					
	PC C07K14/54,					
	PC C07K14/56,C07K14/705,C07K16/24,C07K16/28,C12N1/21,C12N5/10, PC					
	G01N33/15,					
	PC G01N33/50,C12N15/00,A61K37/02,A61K37/66,C12N5/00 CC Canine					
	and feline immunoregulatory proteins, nucleic acid CC					
	molecules and					
	CC method of using the same					
	FT Key					
	Location/Qualifiers					
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	1. 402					
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FEATURES	source					
	Location/Qualifiers					
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Query Match	100.0%;	Score 402;	DB 6;	length 402;
Best Local Similarity	100.0%;	Pred. No. 1e-100;		
Matches 402;	Conservative 0;	Mismatches 0;	Indels 0;	Gaps 0;

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Qy	61	GCTGTAGAAAAATCCCATGAATAGACTGTGGCAGAGACCTTGACACTGCTCTCCACTCAT	120
Db	61	GCTGTAGAAAAATCCCATGAATAGACTGTGGGGCAGAGACCTTGACACTGCTCTCCACTCAT	120
Qy	121	CGAATCTTGGCTGATATGGGCGATGGGAACTGATGATTTCTACTCTCGAAAAATAAAAATCAC	180
Db	121	CGAATCTTGGCTGATATGGGCGATGGGAACTGATGATTTCTACTCTCGAAAAATAAAAATCAC	180
Qy	181	CAACTGTGCATTAATAAGAGTTTTCAGGGTATAGACATGTAAGAAACCAACCTGGCCAC	240
Db	181	CAACTGTGCATTAATAAGAGTTTTCAGGGTATAGACATGTAAGAAACCAACCTGGCCAC	240
Qy	241	GGGAGGCTGTGATTAATCTATTCCTCAAACTGTCTTTAATAAAGAACACATAGAGGCG	300
Db	241	GGGAGGCTGTGATTAATCTATTCCTCAAACTGTCTTTAATAAAGAACACATAGAGGCG	300
Qy	301	CAAAAAAAAAGGTGTGCACGAGAAAAGATGAGAGTGACAAAGTTCTTGACTACTCTGCAA	360
Db	301	CAAAAAAAAAGGTGTGCACGAGAAAAGATGAGAGTGACAAAGTTCTTGACTACTCTGCAA	360
Qy	361	GTATTTCTTGGTGTAAATAACAACGAGTGGACACCGGAAAAGT 402	
Db	361	GTATTTCTTGGTGTAAATAACAACGAGTGGACACCGGAAAAGT 402	

RESULT 2

Accession	LOCUS	Size	Library	Accession	Accession
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DEFINITION	Canine and feline immunoregulatory proteins, nucleic acid molecules and method of using the same.				

ACCESSION	BD211561
VERSION	BD211561.1
KEYWORDS	JP 2002516104-A/67.
SOURCE	Canis familiaris (dog)
ORGANISM	Canis familiaris

REFERENCE
1 (bases 1 to 402)
Eumariyoc; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Carnivora; Fissipedia; Canidae; Canis.

FEATURES

Source

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1. .402
/organism="Canis familiaris"
/mol_type="genomic DNA"
/db_xref="taxon:9615"
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ORIGIN

Query Match	100.0%	Score 402;	DB 6;	Length 402;
Best Local Similarity	100.0%	Pred. No. 1e-100;		
Matches 402;	Conservative 0;	Mismatches 0;	Indels 0;	Gaps 0

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Dd	GCTGTAGAAAAATCCATGATATAGCTGTGTGCAGAGACTTGACACTGCTCTCCACTAT	342
Qy	CGAACTTGGCTGATAGCGGATGGGAACCTGATGATTCCTACTCCTGAAAAATPAAAAATCAC	180
Dd	CGAACTTGGCTGATAGCGGATGGGAACCTGATGATTCCTACTCCTGAAAAATPAAAAATCAC	282
Qy	CAACTGTGCATTAAAGAAAGTTTTCAGGGTATPACACATTGAAGAAACCAATCGCCAC	240
Dd	CAACTGTGCATTAAAGAAAGTTTTCAGGGTATPACACATTGAAGAAACCAATCGCCAC	181
Qy	GGGAGAGCTGTGATPAAAATTAATTCGAAAATTGTCTTTAATPAAAAAGAACACATAGAGGC	300
Dd	GGGAGAGCTGTGATPAAAATTAATTCGAAAATTGTCTTTAATPAAAAAGAACACATAGAGGC	222
Qy	CAAAAAAAAAAAAGGTGTGCAGAGAAAGATGAGAGTGA CAAGTTCTTGACTACTGCA	360
Dd	CAAAAAAAAAAAAGGTGTGCAGAGAAAGATGAGAGTGA CAAGTTCTTGACTACTGCA	102
Qy	GTATTTCTTGGTGTAAATPAAACCGAGTGGACACCGAAAGT	402
Dd	GTATTTCTTGGTGTAAATPAAACCGAGTGGACACCGAAAGT	42

RESULT 3

AR241538	AR241538	402 bp	DNA	linear	PAT 20-DEC-2001
LOCUS					
DEFINITION	Sequence	83	from patent US 6471957.		
ACCESSION	AR241538				
VERSION	AR241538.1	GI:27287247			

ORIGIN

Query Match	100.0%	Score 402;	DB 6;	Length 402;
Best Local Similarity	100.0%	Pred. No. 1e-100;		
Matches 402;	Conservative 0;	Mismatches 0;	Indels 0;	Gaps 0

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Db 1 ATGGAATGCTTCGGAATTTGAGTTGGTACTCTTGAGGGCGCCTAAGTTTCGCCCTT 60
Qy 61 GCTGTAGAAAAATCCCATGATAGACTGTGTGGCAGAGACTTGACACTGCTCCACTGAT 120
Db 61 GCTGTAGAAAAATCCCATGATAGACTGTGTGGCAGAGACTTGACACTGCTCCACTGAT 120
Qy 121 CGAACTTGCTGATAGGCGATGGGAACTGATGATTCCTACTCCTGAAAAATMAAATCAC 180

Db 121 CGAAGTGGCTGATAGGCGATGGAACTGATGTTCTTACTCTGAAAAATMAATCAC 180
Qy 181 CAACGTGTCATTAAAGAGTTTTCAGGGGTATAGACATTTGAGAAACCAACTGCCAC 240
Db 181 CAACGTGTCATTAAAGAGTTTTCAGGGGTATAGACATTTGAGAAACCAACTGCCAC 240
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Db 241 GGGGAGGCTGTGATTAACCTATTCCTCAAACTTGTCTTTAATMAAGAACATAGAGCGC 300
Qy 301 CAAAAAAGAGTGTGCGAGGAGAAAGATGAGAGTGAACAAAGTTCTTGACTACTGCA 360
Db 301 CAAAAAAGAGTGTGCGAGGAGAAAGATGAGAGTGAACAAAGTTCTTGACTACTGCA 360
Qy 361 GTATTTCTTGCTGTATTAACACCGAGTGAACCCGGAAGT 402
Db 361 GTATTTCTTGCTGTATTAACACCGAGTGAACCCGGAAGT 402

RESULT 4
LOCUS AR241539/c 402 bp DNA linear PAT 20-DEC-2002
DEFINITION Sequence 84 from patent US 6471957.
ACCESSION AR241539
VERSION AR241539.1 GI:27287248
KEYWORDS
SOURCE Unknown.
ORGANISM Unknown.
REFERENCE 1 (bases 1 to 402)
AUTHORS Sim,G.-K., Yang,S., Dreitz,M.J. and Wonderling,R.S.
TITLE Canine IL-4 immunoregulatory proteins and uses thereof
JOURNAL Patent: US 6471957-A 84 29-OCT-2002;
FEATURES
Location/Qualifiers
1..402
/organism="unknown"
/mol_type="genomic DNA"

ORIGIN

Query Match 100.0%; Score 402; DB 6; Length 402;
Best Local Similarity 100.0%; Pred. No. 1e-100;
Matches 402; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 ATGAGAAATGCTTGAATTTGAGTTGCTAGCTCTTGGGGCTGCTATGTTTTCGCCCTT 60
Db 402 ATGAGAAATGCTTGAATTTGAGTTGCTAGCTCTTGGGGCTGCTATGTTTTCGCCCTT 343
Qy 61 GCTGTAGAAAAATCCCATGATAGACTGTGTGCGAGAGACCTTGACACTGCTCCACTCAT 120
Db 342 GCTGTAGAAAAATCCCATGATAGACTGTGTGCGAGAGACCTTGACACTGCTCCACTCAT 283
Qy 121 CGAAGTGGCTGTATAGGCGATGGGAACCTGATGATCTTCTACTCTCGAAAAATMAANTAC 180
Db 282 CGAAGTGGCTGTATAGGCGATGGGAACCTGATGATCTTCTACTCTCGAAAAATMAANTAC 223
Qy 181 CAACGTGTCATTAAAGAGTTTTCAGGGGTATAGACATTTGAGAAACCAACTGCCAC 240
Db 222 CAACGTGTCATTAAAGAGTTTTCAGGGGTATAGACATTTGAGAAACCAACTGCCAC 163
Qy 241 GGGGAGGCTGTGATTAACCTATTCCTCAAACTTGTCTTTAATMAAGAACATAGAGCGC 300
Db 241 GGGGAGGCTGTGATTAACCTATTCCTCAAACTTGTCTTTAATMAAGAACATAGAGCGC 103
Qy 301 CAAAAAAGAGTGTGCGAGGAGAAAGATGAGAGTGAACAAAGTTCTTGACTACTGCA 360
Db 102 CAAAAAAGAGTGTGCGAGGAGAAAGATGAGAGTGAACAAAGTTCTTGACTACTGCA 43
Qy 361 GTATTTCTTGCTGTATTAACACCGAGTGAACCCGGAAGT 402
Db 42 GTATTTCTTGCTGTATTAACACCGAGTGAACCCGGAAGT 1

RESULT 5

AR254494
LOCUS AR254494 402 bp DNA linear PAT 20-DEC-2002
DEFINITION Sequence 83 from patent US 6482403.
ACCESSION AR254494
VERSION AR254494.1 GI:27303382
KEYWORDS
SOURCE Unknown.
ORGANISM Unknown.
REFERENCE 1 (bases 1 to 402)
AUTHORS Sim,G.-K., Yang,S., Dreitz,M.J. and Wonderling,R.S.
TITLE Canine IL-13 immunoregulatory proteins and uses thereof
JOURNAL Patent: US 6482403-A 83 19-NOV-2002;
FEATURES
Location/Qualifiers
1..402
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/mol_type="genomic DNA"

ORIGIN

Query Match 100.0%; Score 402; DB 6; Length 402;
Best Local Similarity 100.0%; Pred. No. 1e-100;
Matches 402; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 ATGAGAAATGCTTGAATTTGAGTTGCTAGCTCTTGGGGCTGCTATGTTTTCGCCCTT 60
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Qy 61 GCTGTAGAAAAATCCCATGATAGACTGTGTGCGAGAGACCTTGACACTGCTCCACTCAT 120
Db 61 GCTGTAGAAAAATCCCATGATAGACTGTGTGCGAGAGACCTTGACACTGCTCCACTCAT 120
Qy 121 CGAAGTGGCTGTATAGGCGATGGGAACCTGATGATCTTCTACTCTCGAAAAATMAANTAC 180
Db 121 CGAAGTGGCTGTATAGGCGATGGGAACCTGATGATCTTCTACTCTCGAAAAATMAANTAC 180
Qy 181 CAACGTGTCATTAAAGAGTTTTCAGGGGTATAGACATTTGAGAAACCAACTGCCAC 240
Db 181 CAACGTGTCATTAAAGAGTTTTCAGGGGTATAGACATTTGAGAAACCAACTGCCAC 240
Qy 241 GGGGAGGCTGTGATTAACCTATTCCTCAAACTTGTCTTTAATMAAGAACATAGAGCGC 300
Db 241 GGGGAGGCTGTGATTAACCTATTCCTCAAACTTGTCTTTAATMAAGAACATAGAGCGC 300
Qy 301 CAAAAAAGAGTGTGCGAGGAGAAAGATGAGAGTGAACAAAGTTCTTGACTACTGCA 360
Db 301 CAAAAAAGAGTGTGCGAGGAGAAAGATGAGAGTGAACAAAGTTCTTGACTACTGCA 360
Qy 361 GTATTTCTTGCTGTATTAACACCGAGTGAACCCGGAAGT 402
Db 361 GTATTTCTTGCTGTATTAACACCGAGTGAACCCGGAAGT 402

RESULT 6

AR254495/c 402 bp DNA linear PAT 20-DEC-2002
LOCUS AR254495
DEFINITION Sequence 84 from patent US 6482403.
ACCESSION AR254495
VERSION AR254495.1 GI:27303383
KEYWORDS
SOURCE Unknown.
ORGANISM Unknown.
REFERENCE 1 (bases 1 to 402)
AUTHORS Sim,G.-K., Yang,S., Dreitz,M.J. and Wonderling,R.S.
TITLE Canine IL-13 immunoregulatory proteins and uses thereof
JOURNAL Patent: US 6482403-A 84 19-NOV-2002;
FEATURES
Location/Qualifiers
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/organism="unknown"
/mol_type="genomic DNA"

ORIGIN

Query Match 100.0%; Score 402; DB 6; Length 402;

Best Local Similarity 100.0%; Pred. No. 1e-100;
Matches 402; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

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QY 1 ATGAGATGCTTGAATTTGAGTTGCTAGCTCTGGGGCTGCTATGTTTCTGCCTT 60
Db 402 ATGAGATGCTTGAATTTGAGTTGCTAGCTCTGGGGCTGCTATGTTTCTGCCTT 343
QY 61 GCTGTAGAAAATCCCATGAAATAGACTGTGTGCAGAGACCTTGAACACTGCTCCACTCAT 120
Db 342 GCTGTAGAAAATCCCATGAAATAGACTGTGTGCAGAGACCTTGAACACTGCTCCACTCAT 283
QY 121 CGAAGTGGCTGATAGGCGATGGGAACCTGATGATTCCTACTCTGAAAAATAAAATCAC 180
Db 282 CGAAGTGGCTGATAGGCGATGGGAACCTGATGATTCCTACTCTGAAAAATAAAATCAC 223
QY 181 CAACGTGCATTAAGAAGTTTTCAGGGTATAGACATTTGAAGAACCAAACTGCCAC 240
Db 222 CAACGTGCATTAAGAAGTTTTCAGGGTATAGACATTTGAAGAACCAAACTGCCAC 163
QY 241 GGGGAGGCTGTGATTAACATATTCCTTAATTAAGAAGAACCATAGAGCGC 300
Db 162 GGGGAGGCTGTGATTAACATATTCCTTAATTAAGAAGAACCATAGAGCGC 103
QY 301 CAAAAAAGGCTGTGCAGAGAAAGTGAAGAGTGAACAAAGTTCTTGAAGTCTGCA 360
Db 102 CAAAAAAGGCTGTGCAGAGAAAGTGAAGAGTGAACAAAGTTCTTGAAGTCTGCA 43
QY 361 GTATTTCTTGTGTATTAACACCGAGTGACACCGGAAGT 402
Db 42 GTATTTCTTGTGTATTAACACCGAGTGACACCGGAAGT 1
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RESULT 7
AF331919 610 bp mRNA linear MAM 04-OCT-2001
LOCUS
DEFINITION Canis familiaris interleukin-5 mRNA, complete cds.
ACCESSION AF331919
VERSION AF331919.1 GI:15919180

KEYWORDS
SOURCE
ORGANISM
Canis familiaris (dog)
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Carnivora; Fissipedia; Canidae; Canis.

REFERENCE
AUTHORS
TITLE
Yang, S., Seilline, K.S., Weber, E. and McCall, C.
Canine interleukin-5: molecular characterization of the gene and
expression of biologically active recombinant protein
J. Interferon Cytokine Res. 21 (6), 361-367 (2001)

JOURNAL
MEDLINE
PUBMED
11440633
2 (bases 1 to 610)
Yang, S.
Direct Submission
Submitted (22-DEC-2000) Immunology, Heeka Corporation, 1613
Prospect Parkway, Ft Collins, CO 80525, USA
Location/Qualifiers

FEATURES
source
1. .610
/organism="Canis familiaris"
/mol_type="mRNA"
/db_xref="taxon:9615"
1. .28
29. .433
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/product="interleukin-5"
/protein_id="AA10715.1"
/db_xref="GI:15919181"
/translation="MRLNLSTLALGAAYVSAFVENPNRLVAETTLTSTHRTWL
IGDNLMIPTPENKNDLCIKVEFGIDTLKNGRAHGAVDKLFQNLSTLKEHIEROK
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433. .610

3'UTR
ORIGIN

Query Match 100.0%; Score 402; DB 4; Length 610;
Best Local Similarity 100.0%; Pred. No. 9.8e-101;
Matches 402; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

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QY 1 ATGAGATGCTTGAATTTGAGTTGCTAGCTCTGGGGCTGCTATGTTTCTGCCTT 60
Db 29 ATGAGATGCTTGAATTTGAGTTGCTAGCTCTGGGGCTGCTATGTTTCTGCCTT 88
QY 61 GCTGTAGAAAATCCCATGAAATAGACTGTGTGCAGAGACCTTGAACACTGCTCCACTCAT 120
Db 89 GCTGTAGAAAATCCCATGAAATAGACTGTGTGCAGAGACCTTGAACACTGCTCCACTCAT 148
QY 121 CGAAGTGGCTGATAGGCGATGGGAACCTGATGATTCCTACTCTGAAAAATAAAATCAC 180
Db 149 CGAAGTGGCTGATAGGCGATGGGAACCTGATGATTCCTACTCTGAAAAATAAAATCAC 208
QY 181 CAACGTGCATTAAGAAGTTTTCAGGGTATAGACATTTGAAGAACCAAACTGCCAC 240
Db 209 CAACGTGCATTAAGAAGTTTTCAGGGTATAGACATTTGAAGAACCAAACTGCCAC 268
QY 241 GGGGAGGCTGTGATTAACATATTCCTTAATTAAGAAGAACCATAGAGCGC 300
Db 269 GGGGAGGCTGTGATTAACATATTCCTTAATTAAGAAGAACCATAGAGCGC 328
QY 301 CAAAAAAGGCTGTGCAGAGAAAGTGAAGAGTGAACAAAGTTCTTGAAGTCTGCA 360
Db 329 CAAAAAAGGCTGTGCAGAGAAAGTGAAGAGTGAACAAAGTTCTTGAAGTCTGCA 388
QY 361 GTATTTCTTGTGTATTAACACCGAGTGACACCGGAAGT 402
Db 389 GTATTTCTTGTGTATTAACACCGAGTGACACCGGAAGT 430
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RESULT 8
BD211558 610 bp DNA linear PAT 17-JUN-2003
LOCUS
DEFINITION Canine and feline immunoregulatory proteins, nucleic acid molecules
BD211558
ACCESSION BD211558
VERSION BD211558.1 GI:33021328
KEYWORDS
SOURCE JP 2002516104-A/64
Canis familiaris (dog)
ORGANISM
Canis familiaris (dog)
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Carnivora; Fissipedia; Canidae; Canis.

REFERENCE
AUTHORS
TITLE
Sim, G., Yang, S., Dreitz, M.J. and Wonderling, R.S.
Canine and feline immunoregulatory proteins, nucleic acid molecules
and method of using the same
Patent: JP 2002516104-A 64 04-JUN-2002;
HESKA CORP

JOURNAL
COMMENT
OS Canis familiaris (dog)
PN JP 2002516104-A/64
PD 04-JUN-2002 JP 2000551002
PR 28-MAY-1999 US 60/087306
PI GEKKEB SIM, SHUMIN YANG, MATTHEW J DREITZ, RAMANI S WONDERLING, PC
C12N15/09, A61K31/7088, A61K38/00, A61K38/21, A61K39/00, A61K39/395,
PC A61K39/395,
PC A61K45/00, A61K48/00, A61P37/02, A61P37/04, C07K14/475, C07K14/535,
PC C07K14/54,
PC C07K14/56, C07K14/705, C07K16/24, C07K16/28, C12N1/21, C12N5/10, PC
G01N33/15,
PC G01N33/50, C12N15/00, A61K37/02, A61K37/66, C12N5/00 CC Canine
and feline immunoregulatory proteins, nucleic acid CC
molecules and
CC method of using the same
FH Key Location/Qualifiers
FT CDS (29) . . (430) .
location/Qualifiers

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source
1. .610
/organism="Canis familiaris"
/mol_type="genomic DNA"

ORIGIN /db_xref="taxon:9615"

Query Match 100.0%; Score 402; DB 6; Length 610;
 Best Local Similarity 100.0%; Pred. No. 9.8e-101;
 Matches 402; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 ATGAGAAATGCTTGAATTTGAGTTTGTACCTCTTGGGGCTGCTAATGTTTCTGCTTT 60
 DB 29 ATGAGAAATGCTTGAATTTGAGTTTGTACCTCTTGGGGCTGCTAATGTTTCTGCTTT 88
 QY 61 GCTGTAAAAATCCCATGATATGACTGTGCGAGACCTTGACACTGCTCTCCACTCAT 120
 DB 89 GCTGTAAAAATCCCATGATATGACTGTGCGAGACCTTGACACTGCTCTCCACTCAT 148
 QY 121 CGAAGCTGGCTGATAGGCGATGGGAACTGATGATTCCTACTCTGTAATAAATAAATCAC 180
 DB 149 CGAAGCTGGCTGATAGGCGATGGGAACTGATGATTCCTACTCTGTAATAAATAAATCAC 208
 QY 181 CAACTGTGATTAAGAAGTTTTCAGGGTATAGACATTTGAAGAACAACCAACTGCCAC 240
 DB 209 CAACTGTGATTAAGAAGTTTTCAGGGTATAGACATTTGAAGAACAACCAACTGCCAC 268
 QY 241 GGGGAGCTGTGATTAACATTTCCAAAACCTTGTCTTTAATAAAGAACAATAGAGCGC 300
 DB 269 GGGGAGCTGTGATTAACATTTCCAAAACCTTGTCTTTAATAAAGAACAATAGAGCGC 328
 QY 301 CAAAAAAGAGTGTGCGAGGAAAGATGAGAGTGAACAAAGTTCTTGAATCTTCTGCA 360
 DB 329 CAAAAAAGAGTGTGCGAGGAAAGATGAGAGTGAACAAAGTTCTTGAATCTTCTGCA 388
 QY 361 GTATTTCTTGTGTATTAACACCGAGTGAACCGGAAAGT 402
 DB 389 GTATTTCTTGTGTATTAACACCGAGTGAACCGGAAAGT 430

RESULT 9
 BD211559/6 610 bp DNA linear PAT 17-JUN-2003
 LOCUS Canine and feline immunoregulatory proteins, nucleic acid molecules
 DEFINITION BD211559
 ACCESSION BD211559.1 GI:33021329
 VERSION JP 2002516104-A/65.
 KEYWORDS Canis familiaris (dog)
 SOURCE Canis familiaris
 ORGANISM Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Carnivora; Fissipedia; Canidae; Canis.
 REFERENCE 1 (bases 1 to 610)
 AUTHORS Sim,G., Yang,S., Dreitz,M.J. and Wonderling,R.S.
 TITLE Canine and feline immunoregulatory proteins, nucleic acid molecules
 JOURNAL Patent: JP 2002516104-A 65 04-JUN-2002;
 COMMENT HESKA CORP
 OS Canis familiaris (dog)
 PN JP 2002516104-A/65
 PD 04-JUN-2002
 PF 28-MAY-1999 JP 2000551002
 PR 29-MAY-1998 US 60/087306
 PI GEKKEE SIM,SHUJIN YANG,MATTHEW J DREITZ,RAMANI S WONDERLING PC
 PC C12N15/09,A61K31/7088,A61K38/00,A61K38/21,A61K39/00,A61K39/395,
 PC A61K39/395,
 PC A61K45/00,A61K48/00,A61P37/02,A61P37/04,C07K14/475,C07K14/535,
 PC C07K14/54,
 PC C07K14/56,C07K14/705,C07K16/24,C07K16/28,C12N1/21,C12N5/10, PC
 G01N33/15,
 PC G01N33/50,C12N15/00,A61K37/02,A61K37/66,C12N5/00 CC Canine
 and feline immunoregulatory proteins, nucleic acid CC
 molecules and
 CC method of using the same
 FT Key Location/Qualifiers
 FT source 1..610
 FT /organism="Canis familiaris (dog)".

FEATURES
 source Location/Qualifiers
 1..610
 /organism="Canis familiaris"
 /mol_type="genomic DNA"
 /db_xref="taxon:9615"

ORIGIN

Query Match 100.0%; Score 402; DB 6; Length 610;
 Best Local Similarity 100.0%; Pred. No. 9.8e-101;
 Matches 402; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 ATGAGAAATGCTTGAATTTGAGTTTGTACCTCTTGGGGCTGCTAATGTTTCTGCTTT 60
 DB 29 ATGAGAAATGCTTGAATTTGAGTTTGTACCTCTTGGGGCTGCTAATGTTTCTGCTTT 88
 QY 61 GCTGTAAAAATCCCATGATATGACTGTGCGAGACCTTGACACTGCTCTCCACTCAT 120
 DB 89 GCTGTAAAAATCCCATGATATGACTGTGCGAGACCTTGACACTGCTCTCCACTCAT 148
 QY 121 CGAAGCTGGCTGATAGGCGATGGGAACTGATGATTCCTACTCTGTAATAAATAAATCAC 180
 DB 149 CGAAGCTGGCTGATAGGCGATGGGAACTGATGATTCCTACTCTGTAATAAATAAATCAC 208
 QY 181 CAACTGTGATTAAGAAGTTTTCAGGGTATAGACATTTGAAGAACAACCAACTGCCAC 240
 DB 209 CAACTGTGATTAAGAAGTTTTCAGGGTATAGACATTTGAAGAACAACCAACTGCCAC 268
 QY 241 GGGGAGCTGTGATTAACATTTCCAAAACCTTGTCTTTAATAAAGAACAATAGAGCGC 300
 DB 269 GGGGAGCTGTGATTAACATTTCCAAAACCTTGTCTTTAATAAAGAACAATAGAGCGC 328
 QY 301 CAAAAAAGAGTGTGCGAGGAAAGATGAGAGTGAACAAAGTTCTTGAATCTTCTGCA 360
 DB 329 CAAAAAAGAGTGTGCGAGGAAAGATGAGAGTGAACAAAGTTCTTGAATCTTCTGCA 388
 QY 361 GTATTTCTTGTGTATTAACACCGAGTGAACCGGAAAGT 402
 DB 222 GTATTTCTTGTGTATTAACACCGAGTGAACCGGAAAGT 181

RESULT 10
 AR241536 610 bp DNA linear PAT 20-DEC-2002
 LOCUS Sequence 80 from patent US 6471957.
 DEFINITION AR241536
 ACCESSION AR241536
 VERSION AR241536.1 GI:27287245
 KEYWORDS
 SOURCE Unknown.
 ORGANISM Unknown.
 REFERENCE 1 (bases 1 to 610)
 AUTHORS Sim,G.-K., Yang,S., Dreitz,M.J. and Wonderling,R.S.
 TITLE Canine IL-4 immunoregulatory proteins and uses thereof
 JOURNAL Patent: US 6471957-A 80 29-OCT-2002;
 FEATURES Location/Qualifiers
 1..610
 /organism="unknown"
 /mol_type="genomic DNA"

ORIGIN

Query Match 100.0%; Score 402; DB 6; Length 610;
 Best Local Similarity 100.0%; Pred. No. 9.8e-101;
 Matches 402; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 ATGAGAAATGCTTGAATTTGAGTTTGTACCTCTTGGGGCTGCTAATGTTTCTGCTTT 60
 DB 29 ATGAGAAATGCTTGAATTTGAGTTTGTACCTCTTGGGGCTGCTAATGTTTCTGCTTT 88
 QY 61 GCTGTAAAAATCCCATGATATGACTGTGCGAGACCTTGACACTGCTCTCCACTCAT 120
 DB 89 GCTGTAAAAATCCCATGATATGACTGTGCGAGACCTTGACACTGCTCTCCACTCAT 148
 QY 121 CGAAGCTGGCTGATAGGCGATGGGAACTGATGATTCCTACTCTGTAATAAATAAATCAC 180

Db	149	CGAAGCTGGCTGATAGCGGATGGGAACTGTGATGATTCCTACTCCTGAAAATATAAAAATCAC	208
Qy	181	CAACGTGSCATTTAAAGAAGTTTTCAGGGGTATAGACATATGGAAAGAACCAACATGCCCCAC	240
Db	209	CACCTGTGCATTTAAAGAGATTTCACGGGTATAGCACTTGAAGAACCCAACTGCCCCAC	268
Qy	241	GGGGAGGCTGTGAGATAAACTATTCCTCAAAACCTTGCTTTTAATPAAAGAACATAGAGCGC	300
Db	269	GGGGAGGCTGTGAGATPAAACTATTCCTCAAAACCTTGCTTTTAATPAAAGAACACATAGAGCGC	328
Qy	301	CAAAAAAAAAGGTGTGCAGAGAGAAAGATGAGAGCAAAAGTTCTTGACTACTCTGCAG	360
Db	329	CAAAAAAAAAGGTGTGCAGAGAGAAAGATGAGAGAGCAAAAGTTCTTGACTACTCTGCAG	388
Qy	361	GTATTTCCTGGGTAAATAAACCCGAGTGGGACACCGGAAAAGT	402
Db	389	GTATTTCCTGGGTAAATAAACCCGAGTGGGACACCGGAAAAGT	430

RESULT 11				
LOCUS	AR241537/c			
DEFINITION	AR241537	610 bp	DNA	linear
ACCESSION	Sequence 82 from patent US 6471957.			
VERSION	AR241537			
KEYWORDS	AR241537.1	GI:2787246		
SOURCE	Unknown.			
ORGANISM	Unknown.			
REFERENCES	Unclassified.			
AUTHORS	1 (bases 1 to 610)			
TITLE	Sim,G.-K., Yang,S., Drelitz,M.J. and Wonderling,R.S.			
JOURNAL	Canine IL-4 immunoregulatory proteins and uses thereof			
FEATURES	Patent: US 6471957-A 82 29-OCT-2002;			
SOURCE	Location/Qualifiers			
	1..610			

ORIGIN

Query Match	100.0%;	Score 402;	DB 6;	Length 610;
Best Local Similarity	100.0%;	Pred. No. 9.8e-101;		
Matches 402;	Conservative 0;	Mismatches 0;	Indels 0;	Gaps 0;

OY	1	ATGAAATGCTCTGAATTTGAGTTGGTAGCTCTTGGGGCGGCTTAAGTTCTGGCCTT	60
Db	582	ATGAGAAATGCTTCTGAATTTGAGTTGGTAGCTCTTGGGGCGGCTTAAGTTCTGGCCTT	523
OY	61	GCTGTAGAAAAATCCCATGATTAAGACTGTGTGGCAGAGACCTTGACACTGCTCCACTGAT	120
Db	522	GCTGTAGAAAAATCCCATGATTAAGACTGTGTGGCAGAGACCTTGACACTGCTCCACTGAT	463
OY	121	CGAACTTGGCTGTATGGCGATGGGAACCTGATGATTCTTACTCTGTAAAAATAAATAC	180
Db	462	CGAACTTGGCTGTATGGCGATGGGAACCTGATGATTCTTACTCTGTAAAAATAAATAC	403
OY	181	CAACTGTGCATTAAGAAGTTTTTCAAGGTTATAGACATTTGAAGAACCAACCTGCCAC	240
Db	402	CAACTGTGCATTAAGAAGTTTTTCAAGGTTATAGACATTTGAAGAACCAACCTGCCAC	343
OY	241	GGGAGGCGTGTGGATTAATCTATTCAAAACTTGTCTTTATTAAGAACACATAGAGCGC	300
Db	342	GGGAGGCGTGTGGATTAATCTATTCAAAACTTGTCTTTATTAAGAACACATAGAGCGC	283
OY	301	CAAAAAAAAAGGTGTGCGAGAGAAAGATGGAGATGACAAAGTTCTTAGACTTACTGCAA	360
Db	282	CAAAAAAAAAGGTGTGCGAGAGAAAGATGGAGATGACAAAGTTCTTAGACTTACTGCAA	223
OY	361	GTATTCTTGGTGTAAATAACAACGAGTGGACACCGGAAGT	402
Db	222	GTATTCTTGGTGTAAATAACAACGAGTGGACACCGGAAGT	181

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RESULT 12
LOCUS      AR254492                               610 bp      DNA      linear      PAT 20-DEC-2002
DEFINITION Sequence 80 from patent US 6482403.
ACCESSION  AR254492
VERSION     AR254492.1  GI:27303380
KEYWORDS
SOURCE      Unknown.
            ORGANISM
REFERENCE   1 (bases 1 to 610)
            AUTHORS   Sim,G.-K., Yang,S., Dreitz,M.J. and Wonderling,R.S.
            TITLE      Caniney IL-13 immunoregulatory proteins and uses thereof
            JOURNAL    Patent: US 6482403-A 80 19-NOV-2002;
            FEATURES
            SOURCE     location/Qualifiers
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Query Match	100.0%	Score 402	DB 6	Length 610
Best Local Similarity	100.0%	Pred. No. 9,8e-101		
Matches 402	Conservative 0	Mismatches 0	Indels 0	Gaps 0

Qy	1	ATGAGATGCTTCGAAATTGAGTTTGCTAAGCTCTTGAGGCGTGCTATGTTTTCGCTTT	60
Db	29	ATGGAATGCTTCGAAATTGAGTTTGCTAAGCTCTTGAGGCGTGCTATGTTTTCGCTTT	88
Qy	61	GCTTAGAAAAATCCCATGATAGATGAGTGTGGCAGAGACCTTGACACTGCTCTCACTCAT	120
Db	89	GCTTAGAAAAATCCCATGATAGATGAGTGTGGCAGAGACCTTGACACTGCTCTCACTCAT	148
Qy	121	CGAAGTTGGCTGATAGGCGAGATGGAACTGTATGTTCTTCTACTCCTGAAAAATPAAAAATCAC	180
Db	149	CGAAGTTGGCTGATAGGCGAGATGGAACTGTATGTTCTTCTACTCCTGAAAAATPAAAAATCAC	208

Db

Qy 241 GGGGAGGCGTGGATAAACTATCCCAAACTGTCTTTAATAAAGAACATAGAGCGC 300

Db 269 GGGGAGGCGTGGATAAACTATCCCAAACTGTCTTTAATAAAGAACACATAGAGCGC 328

QY	301	CAAAAAAAAAAGTGTGCGAGGAAAGTGTGAGAGATGCAAAAGTCTCTAGACTACTGTCAA	360
Db	329	CAAAAAAAAAAGTGTGCGAGGAAAGTGTGAGAGATGCAAAAGTCTCTAGACTACTGTCAA	388
QY	361	GTATTTCTTGTCGTAAATAAACCGGATGTGACACCGGAAAGT	402
Db	389	GTATTTCTTGTCGTAAATAAACCGGATGTGACACCGGAAAGT	430

RESULT 13

AR254493/C

LOCUS	AK254493	610 bp	DNA	linear	PA1 20-DEC-2002
DEFINITION	Sequence 82 from patent US 6482403.				

ACCESSION AR254493

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VERSION          AR254493.1  GI:27303381

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KEYWORDS : unknown SOURCE

ORGANISM	Unknown.
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Unclassified.

REFERENCE	1 (bases 1 to 610)
AUTHORS	Sim C-Y, Yano S, Dreifuss M J and Wondolfind P S

AUTHORS	TITLE
Sim, S.-N., Yang, S.-I., Bielez, M.O. and Monceiling, A.O.	Caniney IL-13 immunoregulatory proteins and uses thereof

JOURNAL Patent: US 6482403-A 82 19-NOV-2002;

FEATURES	Location/Qualifiers
Source	1-610

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/mol_type="genomic DNA"
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Query Match 100.0%; Score 402; DB 6; Length 610;
Best Local Similarity 100.0%; Pred. No. 9.8e-101;
Matches 402; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 ATGAGATGCTTGAATTTGAGTTTGTAGCTCTTGGGGCTGCTATGTTTTCGCTTT 60
DB 582 ATGAGATGCTTGAATTTGAGTTTGTAGCTCTTGGGGCTGCTATGTTTTCGCTTT 523

QY 61 GCTGTAGAAAAATCCCATGATAGACTGGTGGCAGAGACTTGACACGCTCTCCACTCAT 120
DB 522 GCTGTAGAAAAATCCCATGATAGACTGGTGGCAGAGACTTGACACGCTCTCCACTCAT 463

QY 121 CGAATCTGGCTGATAGGCGATGGAACTGATGATTCCTACTCTGAAAAATAAATCAC 180
DB 462 CGAATCTGGCTGATAGGCGATGGAACTGATGATTCCTACTCTGAAAAATAAATCAC 403

QY 181 CAATGTGCAATTAAGAAGTTTTCAGGGTATAGACATTTGAAGAACCAACTGCCAC 240
DB 402 CAATGTGCAATTAAGAAGTTTTCAGGGTATAGACATTTGAAGAACCAACTGCCAC 343

QY 241 GGGGAGGCTGTGATTAACCTATTCCTAACTCTTAAATAAAGAACACATAGAGGC 300
DB 342 GGGGAGGCTGTGATTAACCTATTCCTAACTCTTAAATAAAGAACACATAGAGGC 283

QY 301 CAAAAAAGGTGTGACAGAGAAAGATGAGAGTGAACAAAGTTCTAGACTTACCTGCA 360
DB 282 CAAAAAAGGTGTGACAGAGAAAGATGAGAGTGAACAAAGTTCTAGACTTACCTGCA 223

QY 361 GTATTTCTTGATTAATTAACACCGAGTGGACACCGAAAGT 402
DB 222 GTATTTCTTGATTAATTAACACCGAGTGGACACCGAAAGT 181

RESULT 14
AR300436 405 bp DNA linear PAT 12-JUN-2003
LOCUS AR300436
DEFINITION Sequence 1 from patent US 6537781.
ACCESSION AR300436
VERSION AR300436.1 GI:11687875
KEYWORDS
SOURCE Unknown.
ORGANISM Unknown.
REFERENCE 1 (bases 1 to 405)
AUTHORS Guo H., Lawton R., Mermer B. and Aiyappa A.P.
TITLE Methods and compositions concerning canine interleukin 5
JOURNAL Patent: US 6537781-A 1 25-MAR-2003;
FEATURES
Location/Qualifiers
1..405
/organism="unknown"
/mol_type="genomic DNA"

ORIGIN
Query Match 99.2%; Score 398.8; DB 6; Length 405;
Best Local Similarity 99.5%; Pred. No. 7.8e-100;
Matches 400; Conservative 0; Mismatches 2; Indels 0; Gaps 0;

QY 1 ATGAGATGCTTGAATTTGAGTTTGTAGCTCTTGGGGCTGCTATGTTTTCGCTTT 60
DB 1 ATGAGATGCTTGAATTTGAGTTTGTAGCTCTTGGGGCTGCTATGTTTTCGCTTT 60

QY 61 GCTGTAGAAAAATCCCATGATAGACTGGTGGCAGAGACTTGACACGCTCTCCACTCAT 120
DB 61 GCTGTAGAAAAATCCCATGATAGACTGGTGGCAGAGACTTGACACGCTCTCCACTCAT 120

QY 121 CGAATCTGGCTGATAGGCGATGGAACTGATGATTCCTACTCTGAAAAATAAATCAC 180
DB 121 CGAATCTGGCTGATAGGCGATGGAACTGATGATTCCTACTCTGAAAAATAAATCAC 180

QY 181 CAATGTGCAATTAAGAAGTTTTCAGGGTATAGACATTTGAAGAACCAACTGCCAC 240
DB 181 CAATGTGCAATTAAGAAGTTTTCAGGGTATAGACATTTGAAGAACCAACTGCCAC 240

QY 241 GGGGAGGCTGTGATTAACCTATTCCTAACTCTTAAATAAAGAACACATAGAGGC 300
DB 241 GGGGAGGCTGTGATTAACCTATTCCTAACTCTTAAATAAAGAACACATAGAGGC 300

QY 301 CAAAAAAGGTGTGACAGAGAAAGATGAGAGTGAACAAAGTTCTAGACTTACCTGCA 360
DB 301 CAAAAAAGGTGTGACAGAGAAAGATGAGAGTGAACAAAGTTCTAGACTTACCTGCA 360

QY 361 GTATTTCTTGATTAATTAACACCGAGTGGACACCGAAAGT 402
DB 361 GTATTTCTTGATTAATTAACACCGAGTGGACACCGAAAGT 402

RESULT 15
AX083939 405 bp DNA linear PAT 22-JUN-2001
LOCUS AX083939
DEFINITION Sequence 1 from Patent W00111049.
ACCESSION AX083939
VERSION AX083939.2 GI:14532940
KEYWORDS
SOURCE Canis familiaris (dog)
ORGANISM Canis familiaris
REFERENCE 1
AUTHORS Guo H., Lawton R., Mermer B. and Aiyappa A.P.
TITLE Methods and compositions concerning canine interleukin 5
JOURNAL Patent: WO 011049-A 1 15-FEB-2001;
COMMENT IDEXX LABORATORIES, INC. (US)
FEATURES
Location/Qualifiers
1..405
/organism="Canis familiaris"
/mol_type="unassigned DNA"
/db_xref="taxon:9615"

ORIGIN
Query Match 99.2%; Score 398.8; DB 6; Length 405;
Best Local Similarity 99.5%; Pred. No. 7.8e-100;
Matches 400; Conservative 0; Mismatches 2; Indels 0; Gaps 0;

QY 1 ATGAGATGCTTGAATTTGAGTTTGTAGCTCTTGGGGCTGCTATGTTTTCGCTTT 60
DB 1 ATGAGATGCTTGAATTTGAGTTTGTAGCTCTTGGGGCTGCTATGTTTTCGCTTT 60

QY 61 GCTGTAGAAAAATCCCATGATAGACTGGTGGCAGAGACTTGACACGCTCTCCACTCAT 120
DB 61 GCTGTAGAAAAATCCCATGATAGACTGGTGGCAGAGACTTGACACGCTCTCCACTCAT 120

QY 121 CGAATCTGGCTGATAGGCGATGGAACTGATGATTCCTACTCTGAAAAATAAATCAC 180
DB 121 CGAATCTGGCTGATAGGCGATGGAACTGATGATTCCTACTCTGAAAAATAAATCAC 180

QY 181 CAATGTGCAATTAAGAAGTTTTCAGGGTATAGACATTTGAAGAACCAACTGCCAC 240
DB 181 CAATGTGCAATTAAGAAGTTTTCAGGGTATAGACATTTGAAGAACCAACTGCCAC 240

QY 241 GGGGAGGCTGTGATTAACCTATTCCTAACTCTTAAATAAAGAACACATAGAGGC 300
DB 241 GGGGAGGCTGTGATTAACCTATTCCTAACTCTTAAATAAAGAACACATAGAGGC 300

QY 301 CAAAAAAGGTGTGACAGAGAAAGATGAGAGTGAACAAAGTTCTAGACTTACCTGCA 360
DB 301 CAAAAAAGGTGTGACAGAGAAAGATGAGAGTGAACAAAGTTCTAGACTTACCTGCA 360

QY 361 GTATTTCTTGATTAATTAACACCGAGTGGACACCGAAAGT 402
DB 361 GTATTTCTTGATTAATTAACACCGAGTGGACACCGAAAGT 402

Search completed: August 8, 2005, 05:12:04
Job time : 1936.8 secs

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CC response in animals (particularly cats, dogs, horses and humans). They
CC may be used to treat autoimmune or infectious diseases including
CC allergies, tumours, inflammation and graft rejection, and to increase the
CC response from a co-administered antigen. The nucleotide sequences can
CC also be used for the recombinant production of a protein, while
CC nucleotide fragments are useful as probes, as amplification primers and
CC as sources of inhibitory therapeutics (e.g., antisense oligonucleotides).
CC The proteins may be used to raise antibodies and to screen for modulators
CC of activity, while the antibodies may be used in detection, and in drug
CC targeting

XX Sequence 402 BP; 129 A; 79 C; 93 G; 101 T; 0 U; 0 Other;

Query Match 100.0%; Score 402; DB 3; Length 402;

Best Local Similarity 100.0%; Pred. No. 3.2e-110;

Matches 402; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

1 ATGAGAAATGCTTGAATTTGAGTTGCTAGCTTGGGCTGCTTGGTTCGCTTT 60

1 ATGAGAAATGCTTGAATTTGAGTTGCTAGCTTGGGCTGCTTGGTTCGCTTT 60

61 GCTGTAGAAATCCCATGATAGACTGTGGCAGACCTTGACACTGCTCCACTCAT 120

61 GCTGTAGAAATCCCATGATAGACTGTGGCAGACCTTGACACTGCTCCACTCAT 120

121 CGAATCTGGCTGATAGGCGATGGACCTGATGATTCCTTCTGAAATTAATATC 180

121 CGAATCTGGCTGATAGGCGATGGACCTGATGATTCCTTCTGAAATTAATATC 180

181 CAACTGTGATTAAGAAGTTTTCAGGGTATAGACATTTGAAGAACCAACGCCAC 240

181 CAACTGTGATTAAGAAGTTTTCAGGGTATAGACATTTGAAGAACCAACGCCAC 240

241 GGGAGGCTGTGATTAAGTCTTCAAACTTGTCTTTAATTAAGAACAATAGAGCG 300

241 GGGAGGCTGTGATTAAGTCTTCAAACTTGTCTTTAATTAAGAACAATAGAGCG 300

301 CAAAAAAGAGTGTGACGAGAAAGATGAGAGTGAACAAAGTTCTTGAACCTGCAA 360

301 CAAAAAAGAGTGTGACGAGAAAGATGAGAGTGAACAAAGTTCTTGAACCTGCAA 360

361 GTATTTCTGGTGTATTAACACCGAGTGGACACCGGAAAGT 402

361 GTATTTCTGGTGTATTAACACCGAGTGGACACCGGAAAGT 402

RESULT 2

AAZ5549/c

AAZ5549 standard; cDNA; 402 BP.

AAZ5549;

14-MAR-2000 (first entry)

Canine interleukin-5 (IL-5) cDNA coding region complement.

interleukin-5; IL-5; antibody; canine; inhibitor; immune response;

immunoregulation; tumour; cancer; autoimmune disease; vaccine; ss.

Canis familiaris.

MO9961618-A2.

02-DEC-1999.

28-MAY-1999; 99WO-US011942.

29-MAY-1998; 98US-0087306P.

(HESK-) HESKA CORP.

Sim G, Yang S, Dreitz WJ, Wonderling RS;

DR WPI; 2000-072623/06.

DR P-PSDB; AAY58219.

XX Nucleic acids encoding immunoregulatory proteins from cats or dogs,

PT useful for treating or preventing e.g. tumors or autoimmune disease.

XX Claim 1b; Page 226; 264pp; English.

XX Sequences AAZ5546-25551 represent cDNA sequences encoding canine

CC interleukin-5 (IL-5). The invention relates to canine IL-4, canine or

CC feline Flt-3 ligand, canine or feline CD40, canine or feline CD154 (CD40

CC ligand), canine IL-5, canine IL-13, feline interferon-alpha (IFN-alpha)

CC and feline granulocyte macrophage colony-stimulating factor (GM-CSF), and

CC nucleotides which encode these immunoregulatory proteins. The proteins,

CC their associated nucleic acids, specific antibodies and inhibitors may be

CC used as vaccines for therapeutic or prophylactic regulation of an immune

CC response in animals (particularly cats, dogs, horses and humans). They

CC may be used to treat autoimmune or infectious diseases including

CC allergies, tumours, inflammation and graft rejection, and to increase the

CC response from a co-administered antigen. The nucleotide sequences can

CC also be used for the recombinant production of a protein, while

CC nucleotide fragments are useful as probes, as amplification primers and

CC as sources of inhibitory therapeutics (e.g., antisense oligonucleotides).

CC The proteins may be used to raise antibodies and to screen for modulators

CC of activity, while the antibodies may be used in detection, and in drug

CC targeting

XX Sequence 402 BP; 101 A; 93 C; 79 G; 129 T; 0 U; 0 Other;

Query Match 100.0%; Score 402; DB 3; Length 402;

Best Local Similarity 100.0%; Pred. No. 3.2e-110;

Matches 402; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

1 ATGAGAAATGCTTGAATTTGAGTTGCTAGCTTGGGCTGCTTGGTTCGCTTT 60

402 ATGAGAAATGCTTGAATTTGAGTTGCTAGCTTGGGCTGCTTGGTTCGCTTT 60

61 GCTGTAGAAATCCCATGATAGACTGTGGCAGACCTTGACACTGCTCCACTCAT 120

342 GCTGTAGAAATCCCATGATAGACTGTGGCAGACCTTGACACTGCTCCACTCAT 120

121 CGAATCTGGCTGATAGGCGATGGACCTGATGATTCCTTCTGAAATTAATATC 180

282 CGAATCTGGCTGATAGGCGATGGACCTGATGATTCCTTCTGAAATTAATATC 180

181 CAACTGTGATTAAGAAGTTTTCAGGGTATAGACATTTGAAGAACCAACGCCAC 240

222 CAACTGTGATTAAGAAGTTTTCAGGGTATAGACATTTGAAGAACCAACGCCAC 240

241 GGGAGGCTGTGATTAAGTCTTCAAACTTGTCTTTAATTAAGAACAATAGAGCG 300

162 GGGAGGCTGTGATTAAGTCTTCAAACTTGTCTTTAATTAAGAACAATAGAGCG 300

301 CAAAAAAGAGTGTGACGAGAAAGATGAGAGTGAACAAAGTTCTTGAACCTGCAA 360

102 CAAAAAAGAGTGTGACGAGAAAGATGAGAGTGAACAAAGTTCTTGAACCTGCAA 360

361 GTATTTCTGGTGTATTAACACCGAGTGGACACCGGAAAGT 402

42 GTATTTCTGGTGTATTAACACCGAGTGGACACCGGAAAGT 1

RESULT 3

AAZ5546

AAZ5546 standard; cDNA; 610 BP.

AAZ5546;

14-MAR-2000 (first entry)

Canine interleukin-5 (IL-5) cDNA.

interleukin-5; IL-5; antibody; canine; inhibitor; immune response;

immunoregulation; tumour; cancer; autoimmune disease; vaccine; ss.

Canis familiaris.

MO9961618-A2.

02-DEC-1999.

28-MAY-1999; 99WO-US011942.

29-MAY-1998; 98US-0087306P.

(HESK-) HESKA CORP.

Sim G, Yang S, Dreitz WJ, Wonderling RS;

immunoregulation; tumour; cancer; autoimmune disease; vaccine; ss.
Canis familiaris.
Key Location/Qualifiers
CDS 29..433
/*tag= a
/product= "Canine IL-5"
MO9961618-A2.
02-DEC-1999.
28-MAY-1999; 99WO-US011942.
29-MAY-1998; 98US-0087306P.
(HESK-) HESKA CORP.
Sim G, Yang S, Dreitz MJ, Wonderling RS;
WPI: 2000-072623/06.
P-PSDB: AAY58219.
Nucleic acids encoding immunoregulatory proteins from cats or dogs,
useful for treating or preventing e.g. tumors or autoimmune disease.
Claim 1h; Page 223-224; 264pp; English.
Sequences AA255546-255551 represent cDNA sequences encoding canine
interleukin-5 (IL-5). The invention relates to canine IL-4, canine or
feline Flt-3 ligand, canine or feline CD40, canine or feline CD154 (CD40
ligand), canine IL-5, canine IL-13, feline interferon-alpha (IFN-alpha)
and feline granulocyte macrophage colony-stimulating factor (GM-CSF), and
nucleotides which encode these immunoregulatory proteins. The proteins,
when associated with nucleic acids, specific antibodies and inhibitors may be
used as vaccines for therapeutic or prophylactic regulation of an immune
response in animals (particularly cats, dogs, horses and humans). They
may be used to treat autoimmune or infectious diseases including
allergies, tumours, inflammation and graft rejection, and to increase the
response from a co-administered antigen. The nucleotide sequences can
also be used for the recombinant production of a protein, while
nucleotide fragments are useful as probes, as amplification primers and
as sources of inhibitory therapeutics (e.g., antisense oligonucleotides).
The proteins may be used to raise antibodies and to screen for modulators
of activity, while the antibodies may be used in detection, and in drug
targeting
Sequence 610 BP; 202 A; 114 C; 139 G; 155 T; 0 U; 0 Other;
Query Match 100.0%; Score 402; DB 3; Length 610;
Best Local Similarity 100.0%; Pred. No. 3.7e-110;
Matches 402; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
QY 1 ATGAGAAATGCTTGAATTTGATTTGCTACCTTTGGGGCTGCTATGTTTCTGCTTT 60
DB 29 ATGAGAAATGCTTGAATTTGATTTGCTACCTTTGGGGCTGCTATGTTTCTGCTTT 88
QY 61 GCTGTGAAAATCCCATGATAGACTGTGTGAGAGACCTTGACACTGCTCTCCACTCAT 120
DB 89 GCTGTGAAAATCCCATGATAGACTGTGTGAGAGACCTTGACACTGCTCTCCACTCAT 148
QY 121 CGAAGTGGCTGATAGGGGAGGAACTGATGATCTTCTACTCCGAAAATTAATAATAC 180
DB 149 CGAAGTGGCTGATAGGGGAGGAACTGATGATCTTCTACTCCGAAAATTAATAATAC 208
QY 181 CAACGTGCAATTAAGAAGTTTTCAGGGTATAGACACATTAAGAAACCAATGCGCAC 240
DB 209 CAACGTGCAATTAAGAAGTTTTCAGGGTATAGACACATTAAGAAACCAATGCGCAC 268
QY 241 GGGGAGGCTGTGATTAACATATTCCTTTTAAATTAAGAACAATAGAGCGC 300
DB 269 GGGGAGGCTGTGATTAACATATTCCTTTTAAATTAAGAACAATAGAGCGC 328

QY 301 CAAAAAAGGTGTGAGAGAAAGTGAAGTGAACAAGTTCTTAGACTACCTGCAA 360
DB 329 CAAAAAAGGTGTGAGAGAAAGTGAAGTGAACAAGTTCTTAGACTACCTGCAA 388
QY 361 GTATTTCTTGTGTATTAACACCGAGTGAACCCGAAAGT 402
DB 389 GTATTTCTTGTGTATTAACACCGAGTGAACCCGAAAGT 430
RESULT 4
AA255547/c
ID AA255547 standard; cDNA; 610 BP.
XX
AC AA255547;
XX
DT 14-MAR-2000 (first entry)
XX
DE Canine interleukin-5 (IL-5) cDNA complement.
XX
KW Interleukin-5; IL-5; antibody; canine; inhibitor; immune response;
KM immunoregulation; tumour; cancer; autoimmune disease; vaccine; ss.
XX
OS Canis familiaris.
XX
FH Key Location/Qualifiers
FT CDS complement (178..582)
/*tag= a
/product= "Canine IL-5"
XX
XX MO9961618-A2.
XX
PN 02-DEC-1999.
XX
PP 28-MAY-1999; 99WO-US011942.
XX
PR 29-MAY-1998; 98US-0087306P.
XX
PA (HESK-) HESKA CORP.
XX
PI Sim G, Yang S, Dreitz MJ, Wonderling RS;
XX
DR WPI: 2000-072623/06.
XX
PT P-PSDB: AAY58219.
XX
FT Nucleic acids encoding immunoregulatory proteins from cats or dogs,
useful for treating or preventing e.g. tumors or autoimmune disease.
XX
PS Claim 1h; Page 224-225; 264pp; English.
XX
CC Sequences AA255546-255551 represent cDNA sequences encoding canine
interleukin-5 (IL-5). The invention relates to canine IL-4, canine or
feline Flt-3 ligand, canine or feline CD40, canine or feline CD154 (CD40
ligand), canine IL-5, canine IL-13, feline interferon-alpha (IFN-alpha)
and feline granulocyte macrophage colony-stimulating factor (GM-CSF), and
nucleotides which encode these immunoregulatory proteins. The proteins,
when associated with nucleic acids, specific antibodies and inhibitors may be
used as vaccines for therapeutic or prophylactic regulation of an immune
response in animals (particularly cats, dogs, horses and humans). They
may be used to treat autoimmune or infectious diseases including
allergies, tumours, inflammation and graft rejection, and to increase the
response from a co-administered antigen. The nucleotide sequences can
also be used for the recombinant production of a protein, while
nucleotide fragments are useful as probes, as amplification primers and
as sources of inhibitory therapeutics (e.g., antisense oligonucleotides).
The proteins may be used to raise antibodies and to screen for modulators
of activity, while the antibodies may be used in detection, and in drug
targeting
Sequence 610 BP; 155 A; 139 C; 114 G; 202 T; 0 U; 0 Other;
Query Match 100.0%; Score 402; DB 3; Length 610;
Best Local Similarity 100.0%; Pred. No. 3.7e-110;

Matches 402; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 ATGAGAAATGCTTCTGAAATTTGAGTTTGTAGCTCTTGAGGCTGCTTAATGTTTCTGCTTT 60
Db 582 ATGAGAAATGCTTCTGAAATTTGAGTTTGTAGCTCTTGAGGCTGCTTAATGTTTCTGCTTT 523
QY 61 GCTGTAAAAATCCCATGAATAGACTGTGGCAGAGACCTTGACACTGCTCTCCACTCAT 120
Db 522 GCTGTAAAAATCCCATGAATAGACTGTGGCAGAGACCTTGACACTGCTCTCCACTCAT 463
QY 121 CGAAGTGGCTGATAGGCGATGGAACCTGATGATTCCTACTCTGCTGAAAAATAAAAATCAC 180
Db 462 CGAAGTGGCTGATAGGCGATGGAACCTGATGATTCCTACTCTGCTGAAAAATAAAAATCAC 403
QY 181 CAATGTGCATTAAAGAGTTTTCAGGGTATAGACATTTGAAGAACCAATGCGCCAC 240
Db 402 CAATGTGCATTAAAGAGTTTTCAGGGTATAGACATTTGAAGAACCAATGCGCCAC 343
QY 241 GGGGAGGCTGTGATAACTATTCCAAAATCTGTCTTTAATAAAGAACATAGAGCGC 300
Db 342 GGGGAGGCTGTGATAACTATTCCAAAATCTGTCTTTAATAAAGAACATAGAGCGC 283
QY 301 CAAAAAAAAGGTGTGACAGAGAAAGATGAGAGTGAACAAAGTTCTTAGACTACTGCAA 360
Db 282 CAAAAAAAAGGTGTGACAGAGAAAGATGAGAGTGAACAAAGTTCTTAGACTACTGCAA 223
QY 361 GTATTTCTTGTTGATTAATTAACACCGAGTGGACACCGGAAGT 402
Db 222 GTATTTCTTGTTGATTAATTAACACCGAGTGGACACCGGAAGT 181

RESULT 5
AAF74300
ID AAF74300 standard; DNA; 405 BP.

XX AAF74300;
XX
XX
AC 04-MAY-2001 (first entry)
XX
XX
DT Canine interleukin-5 coding sequence #1.
XX
XX
DE Dog; interleukin-5; IL-5; allergy; cancer; gene therapy;
XX
XX
KM Inflammatory reaction; ds.
XX
XX
OS Canis sp.
XX
XX
PN WO200111049-A2.
XX
XX
PD 15-FEB-2001.
XX
XX
PF 09-AUG-2000; 2000MO-US021651.
XX
XX
PR 10-AUG-1999; 99US-00371615.
XX
XX
PA (IDEX-) IDEXX LAB INC.
XX
XX
PI Guo H, Lawton R, Mermer B, Aiyappa AP;
XX
XX
PI WPI; 2001-191542/19.
XX
XX
DR P-PSDB; AAB72615.
XX
XX
DR Novel canine interleukin 5 polynucleotide and polypeptides are used for
XX
XX
PT generating antibodies which are useful in treating allergies in dogs.
XX
XX
PS Claim 31; Page 46; 48pp; English.
XX
XX
CC The present invention provides the protein and coding sequences of the
XX
XX
CC canine interleukin-5 (IL-5) protein. This can be used to treat allergies,
XX
XX
CC cancer and inflammatory reactions in dogs. The present sequence is one
XX
XX
CC version of the IL-5 coding sequence shown in the specification
XX
XX
SO Sequence 405 BP; 131 A; 77 C; 94 G; 103 T; 0 U; 0 Other;

Query Match 99.2%; Score 398.8; DB 4; Length 405;
Best Local Similarity 99.5%; Pred. No. 2,9e-109;
Matches 400; Conservative 0; Mismatches 2; Indels 0; Gaps 0;

QY 1 ATGAGAAATGCTTCTGAAATTTGAGTTTGTAGCTCTTGAGGCTGCTTAATGTTTCTGCTTT 60
Db 1 ATGAGAAATGCTTCTGAAATTTGAGTTTGTAGCTCTTGAGGCTGCTTAATGTTTCTGCTTT 60
QY 61 GCTGTAAAAATCCCATGAATAGACTGTGGCAGAGACCTTGACACTGCTCTCCACTCAT 120
Db 61 GCTGTAAAAATCCCATGAATAGACTGTGGCAGAGACCTTGACACTGCTCTCCACTCAT 120
QY 121 CGAAGTGGCTGATAGGCGATGGAACCTGATGATTCCTACTCTGCTGAAAAATAAAAATCAC 180
Db 121 CGAAGTGGCTGATAGGCGATGGAACCTGATGATTCCTACTCTGCTGAAAAATAAAAATCAC 180
QY 181 CAATGTGCATTAAAGAGTTTTCAGGGTATAGACATTTGAAGAACCAATGCGCCAC 240
Db 181 CAATGTGCATTAAAGAGTTTTCAGGGTATAGACATTTGAAGAACCAATGCGCCAC 240
QY 241 GGGGAGGCTGTGATAACTATTCCAAAATCTGTCTTTAATAAAGAACATAGAGCGC 300
Db 241 GGGGAGGCTGTGATAACTATTCCAAAATCTGTCTTTAATAAAGAACATAGAGCGC 300
QY 301 CAAAAAAAAGGTGTGACAGAGAAAGATGAGAGTGAACAAAGTTCTTAGACTACTGCAA 360
Db 301 CAAAAAAAAGGTGTGACAGAGAAAGATGAGAGTGAACAAAGTTCTTAGACTACTGCAA 360
QY 361 GTATTTCTTGTTGATTAATTAACACCGAGTGGACACCGGAAGT 402
Db 361 GTATTTCTTGTTGATTAATTAACACCGAGTGGACACCGGAAGT 402

RESULT 6
AAZ55550
ID AAZ55550 standard; cDNA; 345 BP.

XX AAZ55550;
XX
XX
AC 14-MAR-2000 (first entry)
XX
XX
DT Canine mature interleukin-5 (IL-5) cDNA.
XX
XX
DE Interleukin-5; IL-5; antibody; canine; inhibitor; immune response;
XX
XX
KM immunoregulation; tumour; cancer; autoimmune disease; vaccine; ss.
XX
XX
OS Canis familiaris.
XX
XX
PN WO961618-A2.
XX
XX
PD 02-DEC-1999.
XX
XX
PF 28-MAY-1999; 99MO-US011942.
XX
XX
PR 29-MAY-1998; 98US-0087306P.
XX
XX
PA (HESK-) HESKA CORP.
XX
XX
PI Sim G, Yang S, Dreitz MJ, Wonderling RS;
XX
XX
PI WPI; 2000-072623/06.
XX
XX
DR P-PSDB; AAY58220.
XX
XX
DR Nucleic acids encoding immunoregulatory proteins from cats or dogs,
XX
XX
PT useful for treating or preventing e.g. tumors or autoimmune disease.
XX
XX
PS Claim 1b; Page 226-227; 264pp; English.
XX
XX
CC Sequences AAZ55546-Z55551 represent cDNA sequences encoding canine
XX
XX
CC interleukin-5 (IL-5). The invention relates to canine IL-4, canine or
XX
XX
CC feline Flt-3 ligand, canine or feline CD40, canine or feline CD134 (CD40
XX
XX
CC ligand), canine IL-5, canine IL-13, feline interferon-alpha (IFN-alpha)
XX
XX
CC and feline granulocyte macrophage colony-stimulating factor (GM-CSF), and

CC nucleotides which encode these immunoregulatory proteins. The proteins, CC their associated nucleic acids, specific antibodies and inhibitors may be CC used as vaccines for therapeutic or prophylactic regulation of an immune CC response in animals (particularly cats, dogs, horses and humans). They CC may be used to treat autoimmune or infectious diseases including CC allergies, tumours, inflammation and graft rejection, and to increase the CC response from a co-administered antigen. The nucleotide sequences can CC also be used for the recombinant production of a protein, while CC nucleotide fragments are useful as probes, as amplification primers and CC as sources of inhibitory therapeutics (e.g., antisense oligonucleotides). CC The proteins may be used to raise antibodies and to screen for modulators CC of activity, while the antibodies may be used in detection, and in drug CC targeting

SO Sequence 345 BP; 120 A; 68 C; 78 G; 79 T; 0 U; 0 Other;

Query Match 85.8%; Score 345; DB 3; Length 345;
Best Local Similarity 100.0%; Pred. No. 3.8e-93;
Matches 345; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Dy 58 TTGCTGAGAAATCCCATGATAGACTGGGAGAGACCTTGACATGCTCTCCACT 117
Db 1 TTGCTGAGAAATCCCATGATAGACTGGGAGAGACCTTGACATGCTCTCCACT 60
Qy 118 CATGAACTTGCTGATAGGCGATGGGAACTGATGATTCCTACTCTGAAATATAAAT 177
Db 61 CATGAACTTGCTGATAGGCGATGGGAACTGATGATTCCTACTCTGAAATATAAAT 120
Qy 178 CACCACTGTCATTAAGAAAGTTTTCAGGGTATAGACATGAGAACCAAACTGCC 237
Db 121 CACCACTGTCATTAAGAAAGTTTTCAGGGTATAGACATGAGAACCAAACTGCC 180
Qy 238 CACGGGAGGCTGGGATTAACCTATTCGAAACCTGCTTTAATTAAGAACATAGAG 297
Db 181 CACGGGAGGCTGGGATTAACCTATTCGAAACCTGCTTTAATTAAGAACATAGAG 240
Qy 298 CGCCAAAAAAGAGGTGTCAGAGAAAGATGAGAGTGAACAAAGTTCTAGACTACCTG 357
Db 241 CGCCAAAAAAGAGGTGTCAGAGAAAGATGAGAGTGAACAAAGTTCTAGACTACCTG 300
Qy 358 CAACTATTCTTGGTGTATTAACACCGAGTGGACACCGGAAAGT 402
Db 301 CAACTATTCTTGGTGTATTAACACCGAGTGGACACCGGAAAGT 345

RESULT 7

AAZ5551/c
ID AAZ5551 standard; cDNA; 345 BP.

AC AAZ5551;
XX
DT 14-MAR-2000 (first entry)
XX
DE Canine mature interleukin-5 (IL-5) cDNA complement.
XX
KM Interleukin-5; IL-5; antibody; canine; inhibitor; immune response;
KM immunoregulation; tumour; cancer; autoimmune disease; vaccine; ss.
XX
OS Canis familiaris.
XX
PN WO9961618-A2.
XX
PD 02-DEC-1999.
XX
PF 28-MAY-1999; 99WO-US011942.
XX
PR 29-MAY-1998; 98US-0087306P.
XX
PA (HESKA-) HESKA CORP.
XX
PI Sim G, Yang S, Dreitz MJ, Wonderling RS;
XX
XX WPI, 2000-072623/06.

DR P-PSDB; AAY58220.
XX
XX Nucleic acids encoding immunoregulatory proteins from cats or dogs.
PT useful for treating or preventing e.g. tumors or autoimmune disease.
XX
XX Claim 1b; Page 228; 264pp; English..

Sequences AAZ55546-255551 represent cDNA sequences encoding canine CC interleukin-5 (IL-5). The invention relates to canine IL-4, canine or CC feline IL-3 ligand, canine or feline CD40, canine or feline CD154 (CD40 CC ligand), canine IL-5, canine IL-13, feline interferon-alpha (IFN-alpha) CC and feline granulocyte macrophage colony-stimulating factor (GM-CSF), and CC nucleotides which encode these immunoregulatory proteins. The proteins, CC their associated nucleic acids, specific antibodies and inhibitors may be CC used as vaccines for therapeutic or prophylactic regulation of an immune CC response in animals (particularly cats, dogs, horses and humans). They CC may be used to treat autoimmune or infectious diseases including CC allergies, tumours, inflammation and graft rejection, and to increase the CC response from a co-administered antigen. The nucleotide sequences can CC also be used for the recombinant production of a protein, while CC nucleotide fragments are useful as probes, as amplification primers and CC as sources of inhibitory therapeutics (e.g., antisense oligonucleotides). CC The proteins may be used to raise antibodies and to screen for modulators CC of activity, while the antibodies may be used in detection, and in drug CC targeting

SO Sequence 345 BP; 79 A; 78 C; 68 G; 120 T; 0 U; 0 Other;

Query Match 85.8%; Score 345; DB 3; Length 345;
Best Local Similarity 100.0%; Pred. No. 3.8e-93;
Matches 345; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Dy 58 TTGCTGAGAAATCCCATGATAGACTGGGAGAGACCTTGACATGCTCTCCACT 117
Db 345 TTGCTGAGAAATCCCATGATAGACTGGGAGAGACCTTGACATGCTCTCCACT 286
Qy 118 CATGAACTTGCTGATAGGCGATGGGAACTGATGATTCCTACTCTGAAATATAAAT 177
Db 285 CATGAACTTGCTGATAGGCGATGGGAACTGATGATTCCTACTCTGAAATATAAAT 226
Qy 178 CACCACTGTCATTAAGAAAGTTTTCAGGGTATAGACATGAGAACCAAACTGCC 237
Db 225 CACCACTGTCATTAAGAAAGTTTTCAGGGTATAGACATGAGAACCAAACTGCC 166
Qy 238 CACGGGAGGCTGGGATTAACCTATTCGAAACCTGCTTTAATTAAGAACATAGAG 297
Db 165 CACGGGAGGCTGGGATTAACCTATTCGAAACCTGCTTTAATTAAGAACATAGAG 106
Qy 298 CGCCAAAAAAGAGGTGTCAGAGAAAGATGAGAGTGAACAAAGTTCTAGACTACCTG 357
Db 105 CGCCAAAAAAGAGGTGTCAGAGAAAGATGAGAGTGAACAAAGTTCTAGACTACCTG 46
Qy 358 CAACTATTCTTGGTGTATTAACACCGAGTGGACACCGGAAAGT 402
Db 45 CAACTATTCTTGGTGTATTAACACCGAGTGGACACCGGAAAGT 1

RESULT 8

AAZ44265
ID AAZ44265 standard; DNA; 838 BP.

AC AAZ44265;
XX
DT 31-MAR-2000 (first entry)
XX
DE Porcine IL-5 DNA.
XX
KM Pig; vaccine; cysticercosis; protective antigen; cCL; cC3; cC4;
KM tennial cysticercus; gamma interferon; IFN-gamma; interleukin 5; IL-5; ss.
XX
OS Sus scrofa.
XX
XX CNI231339-A.

XX 13-OCT-1999.
 XX 29-JAN-1999; 99CN-00113447.
 XX 29-JAN-1999; 99CN-00113447.
 XX (UYTM-) UNIV NO 2 MILITARY MEDICAL PLA.
 PA Sun S, Dai J;
 PI WPI; 2000-087904/08.
 DR Nucleic acid vaccine for cysticercosis co-contracted by human and pig.
 XX Claim 3; Page 9; 21pp; Chinese.
 PS This invention describes a novel nucleic acid vaccine for preventing and
 CC curing human and pork cysticercosis. The invention involves the formation
 CC of a eukaryotic expression plasmid from fusion transcript expression unit
 CC consisting of three protective antigen genes (CC1, CC3 and CC4) of pig
 CC ventral cysticercus and coexpression unit of related cell factor gamma
 CC interferon (IFN-gamma) and pork interleukin 5 (IL-5) genes. The
 CC production and purification process of said nucleic acid vaccine is
 CC simple and convenient, the physical and chemical properties of the
 CC vaccine are stable, and the vaccine is easy to store and transport, and
 CC possesses effective immunological protective function for human and pig
 CC cysticercosis. This sequence represents the pig IL-5 gene used in the
 CC method of the invention

XX Sequence 838 BP; 280 A; 148 C; 171 G; 239 T; 0 U; 0 Other;

XX Query Match 85.7%; Score 344.4; DB 3; Length 838;

XX Best Local Similarity 91.0%; Pred. No. 8.1e-93;

XX Matches 366; Conservative 0; Mismatches 36; Indels 0; Gaps 0;

QY 1 ATGAGATGCTTCTGAAATTAGTTTGTACTCTTGGGGCTGCTATGTTTCTGCTTT 60
 DB 45 ATGAGAAAGCTTCTGCAATTGAGTTTGTACTCTTGGGGCTGCTATGTTTCTGCTATT 104
 QY 61 GCTGTAGAAATCCCATGATATAGACTGGTGCGAGAGACTTGACATGCTCTCCACTCAT 120
 DB 105 GCTGTACAAAGTCCCATGATATAGACTGGTGCGAGAGACTTGACATGCTCTCTCCACTCAT 164
 QY 121 CGAATCTGCTGATAGGCGATGCGAAGCTGATGATCTCTCTCTGAAATATATATATATAT 180
 DB 165 CGAATCTGCTGATAGGCGAAGCTGATGATCTCTCTCTGAAATATATATATATATATATAT 224
 QY 181 CAATCTGCTATTAAGAAAGTTTTCAGGTTATACACATTTGAAGAACCAATCTGCCAC 240
 DB 225 CAATCTGCTATTAAGAAAGTTTTCAGGTTATACACATTTGAAGAACCAATCTGCCAC 284
 QY 241 GGGGAGGCTGTGATTAACATATTCCTTCTTATTAATTAAGAACACATGAGCGC 300
 DB 285 GGGGAGGCTGTGATTAACATATTCCTTCTTATTAATTAAGAACACATGAGCGC 344
 QY 301 CAAAAAAGAGTGTGCGAGAAAGATGAGAGTGAACAAAGTTCTAGACTTACCTGCAA 360
 DB 345 CAAAAAAGAGTGTGCGAGAAAGATGAGAGTGAACAAAGTTCTAGACTTACCTGCAA 404
 QY 361 GTATTTCTTGTGTATTAACACCGAGTGCACCGGAAAGT 402
 DB 405 GTGTTTCTTGTGTATTAACACCGAGTGCACCGGAAAGT 446

RESULT 9

AAT50755

ID AAT50755 standard; DNA; 520 BP.

XX AAT50755;

XX 17-OCT-2003 (revised)

DT 24-SEP-1997 (first entry)

XX Ovine IL-5 gene.
 DE Cytokine; ovine; sheep; interleukin-5; interleukin-12; IL-5; IL-12;
 XX livestock; cow; stress; transport; vaccine adjuvant; veterinary; cancer;
 KM immunosuppression; allergy; reproductive system; growth; early maturity;
 KM antibody; diagnosis; immunopotentiator;
 KM early haematopoietic progenitor cell; cytotoxic cell; thymocyte;
 KM secretion; IGM; IGA; bacterial endotoxin; gamma-interferon; ss.
 XX OS
 XX Ovis aries.

XX Key Location/Qualifiers
 FH CDS 46..444
 FT /*tag= a
 FT /product= "Ovine_IL-5"
 FT 46..183
 FT exon /*tag= b
 FT /number= 1
 FT exon 184..216
 FT /*tag= c
 FT /number= 2
 FT exon 217..345
 FT /*tag= d
 FT /number= 3
 FT exon 346..480
 FT /*tag= e
 FT /number= 4

XX MO9700321-A1.

XX 03-JAN-1997.

XX 14-JUN-1996; 96MO-AU000360.

XX 14-JUN-1995; 95AU-00003502.

XX 27-OCT-1995; 95AU-00006244.

XX (CSIR) COMMONWEALTH SCI & IND RES ORG.

XX Seow H, Wood P;

XX WPI; 1997-077528/07.

XX P-PSDB; AAM08479.

XX Nucleic acid encoding ovine interleukin-5 or -12 - used as vaccine
 PT adjuvants and to treat or prevent microbial infections in livestock.

XX Claim 6; Page 39-40; 78pp; English.

XX The sequences given in AAT50755-56 encode ovine interleukin-5 (IL-5).
 CC Ovine IL-5 or IL-12 are used to treat and/or prevent infections in
 CC livestock (esp. cows and sheep), particularly where the animals are
 CC stressed, e.g. during transport. IL-5 and IL-12 can also be used as
 CC adjuvants in vaccines for veterinary use (partic. weakly immunogenic
 CC subunit or synthetic peptide vaccines). They may also be used to treat
 CC cancer, immunosuppression and allergy, to enhance/suppress the
 CC reproductive system and to promote growth or early maturity. Optionally
 CC interleukin can be delivered from constructs or delivery cells and
 CC antibodies are useful in enzyme immunoassays for rapid diagnosis of
 CC infection. The interleukins are immunopotentiators, especially IL-5
 CC promotes growth of early haematopoietic progenitor cells and generation
 CC of cytotoxic cells from thymocytes, also it stimulates production and
 CC secretion of IGM and IGA (in synergism with bacterial endotoxin). IL-12
 CC induces production of gamma-interferon by, and proliferation of, T and NK
 CC cells and increases the (non-)specific cytolytic lymphocyte response. The
 CC genetic constructs can also be used for in vitro production of IL-5 or -
 CC 12. (Updated on 17-OCT-2003 to standardise OS field)

XX Sequence 520 BP; 166 A; 99 C; 124 G; 131 T; 0 U; 0 Other;

XX Query Match 78.7%; Score 316.2; DB 2; Length 520;

XX Best Local Similarity 86.8%; Pred. No. 1.9e-84;

XX 10-AUG-1999; 99US-00371615.
XX (IDEX-) IDEXX LAB INC.
XX
XX Guo H, Lawton R, Mermer B, Aiyappa AP;
XX WPI; 2001-191542/19.
XX
XX Novel canine interleukin 5 polynucleotide and polypeptides are used for
XX generating antibodies which are useful in treating allergies in dogs.
XX
XX Claim 1; Page 35; 48pp; English.
XX
XX The present invention provides the protein and coding sequences of the
XX canine interleukin-5 (IL-5) protein. This can be used to treat allergies,
XX cancer and inflammatory reactions in dogs. The present sequence is one
XX version of the IL-5 coding sequence shown in the specification
XX
SQ Sequence 393 BP; 128 A; 82 C; 86 G; 97 T; 0 U; 0 Other;
Query Match 71.5%; Score 287.4; DB 4; Length 393;
Best Local Similarity 99.7%; Pred. No. 7.6e-76;
Matches 288; Conservative 0; Mismatches 1; Indels 0; Gaps 0;
QY 103 AACTGCTCTCCACTCATCGAATTGGCTGATAGGCGATGGGAACTGATGATTTCTACT 162
DB 1 ACACGTCTCTCCACTCATCGAATTGGCTGATAGGCGATGGGAACTGATGATTTCTACT 60
QY 163 CCTGAAATTAATAATTCACCACTGTGCTTAAGAAAGTTTTCAGGGATAGACAAATTG 222
DB 61 CCTGAAATTAATAATTCACCACTGTGCTTAAGAAAGTTTTCAGGGATAGACAAATTG 120
QY 223 AAGAACCAACTGCGCCACGGGAGGCTGTGATTAACCTATTCCAAACTGCTTTAATA 282
DB 121 AAGAACCAACTGCGCCACGGGAGGCTGTGATTAACCTATTCCAAACTGCTTTAATA 180
QY 283 AAAGAACCATAGAGCCGCCAAAAAAGGTGTGTCAGAGAAAGATGAGTACAAAG 342
DB 181 AAAGAACCATAGAGCCGCCAAAAAAGGTGTGTCAGAGAAAGATGAGTACAAAG 240
QY 343 TTCCTAGACTACCTGCAAGTATTTCTGTGTGTAATTAACACCGAGTGA 391
DB 241 TTCCTAGACTACCTGCAAGTATTTCTGTGTGTAATTAACACCGAGTGA 289
RESULT 12
AAA34857
ID AAA34857 standard; DNA; 816 BP.
XX
XX AAA34857;
AC
XX
XX 28-JUL-2000 (first entry)
DT
XX
XX Human adenosine receptor related polynucleotide SEQ ID NO:2546.
DE
XX
XX Human; adenosine receptor; low adenosine antisense oligonucleotide;
XX phosphorocholate; impaired respiration; inflammation; allergy;
XX allergic disease; bronchoconstriction; inhibitor; anti-inflammatory;
XX antiallergic; antiaesthetic; cytotstatic; analgesic; impaired airway;
XX lung disease; ischaemic condition; pulmonary vasoconstriction; asthma;
XX respiratory distress syndrome; pain; cystic fibrosis; emphysema;
XX pulmonary hypertension; chronic obstructive pulmonary disease; COPD;
XX cancer; leukemia; lymphoma; carcinoma; metastasis; ss.
XX
XX Homo sapiens.
OS
XX
XX WO200009525-A2.
XX
XX 24-FEB-2000.
XX
XX 03-AUG-1999; 99WO-US017712.

PR 03-AUG-1998; 98US-0095212P.
XX
XX (UYEC-) UNIV EAST CAROLINA.
XX
XX NYce JM;
XX
XX WPI; 2000-205971/18.
XX
XX New antisense oligonucleotides useful for treating e.g. pulmonary
XX PT vasoconstriction, inflammation, allergies, asthma, hypertension,
XX PT bronchitis, emphysema, respiratory distress syndrome, ischemia or
XX PT cancers.
XX
XX Disclosure; Page 716; 1343pp; English.
XX
XX
XX The present invention describes a new composition comprising an antisense
XX oligonucleotide (ON) with low adenosine (up to 15%), which targets
XX nucleic acids involved in bronchoconstriction, allergies, and/or
XX inflammation. The ON can have antiinflammatory, antiallergic,
XX antiaesthetic, cytotstatic and analgesic activities. The compositions are
XX useful for the treatment of diseases associated with inflammation,
XX impaired airways, including lung disease and diseases whose secondary
XX effects afflict the lungs of a subject. They can be used for treating
XX e.g. ischaemic conditions, pulmonary vasoconstriction, allergies, asthma,
XX impeded respiration, respiratory distress syndrome, pain, cystic
XX fibrosis, pulmonary hypertension, emphysema, chronic obstructive
XX pulmonary disease (COPD), and cancers such as leukemia, lymphoma,
XX carcinomas, and cancers which may metastasize to the lungs, including
XX breast and prostate cancer. The reduction of the adenosine content of the
XX ON reduces side effects. The A-containing ONs break down with the
XX release of deoxyadenosine which activates adenosine receptors causing
XX bronchoconstriction and inflammation. AAA2313 to AAA3512 represent the
XX nucleotide sequences given in the sequence listing from the present
XX invention, which correspond to SEQ ID NO:1 to 2815, and then the last 185
XX sequences are also called SEQ ID NO:1 to 185, but the sequences differ
XX from the previously named sequences. SEQ ID NO:11 to 1680 (AAA3233 to
XX AAA3392) are specifically claimed ONs from the present invention. N.B.
XX Sequences given in the disclosure of the present invention do not match
XX listing
XX
SQ Sequence 816 BP; 277 A; 137 C; 164 G; 238 T; 0 U; 0 Other;
Query Match 69.0%; Score 277.2; DB 3; Length 816;
Best Local Similarity 80.6%; Pred. No. 1.2e-72;
Matches 324; Conservative 0; Mismatches 78; Indels 0; Gaps 0;
QY 1 ATGAGATGCTTCTGATTTGAGTTGCTAGCTTGGGGCTGCTTGTCTTCTGCTTT 60
DB 45 ATGAGATGCTTCTGATTTGAGTTGCTAGCTTGGGGCTGCTTGTCTTCTGCTTT 104
QY 61 GCTGTAGAAATCCCATGATAGACTGTGGCAGAGACTTGACACTGCTCCACTCAT 120
DB 105 CCCACAGAAATTCACCAAGTGCATTGTGTAAGAGACTTGGCAGCTTTCACTCAT 164
QY 121 GAACTTGCTGATAGCGATGGAGCTGATGATTTCTTACTCTCTGAAAAATTAATCAC 180
DB 165 GAACTTGCTGATAGCGATGAGACTGATGATTTCTTCTGTAACATTAATAATCAC 224
QY 181 CAACCTGCAATTAAGAAAGTTTTCAGAGGTATAGACATTTGAAGAACCAACCTGCCAC 240
DB 225 CAACCTGCACTGAAGAAATCTTTCAGAGGAATAGGCACCTGGAGATCAAACTGTCAA 284
QY 241 GGGGAGGCTGTGATTAATCAATTCCTGCTTTAATAAAGAACATAGAGCCG 300
DB 285 GGGGAGGCTGTGATTAATCAATTCCTGCTTTAATAAAGAACATAGAGCCG 344
QY 301 CAAAAAAGAGGTGTGAGAGAAAGATGAGAGTGAACAAAGTTCTTAGACTACCTGCAA 360
DB 345 CAAAAAAGAGGTGTGAGAGAAAGATGAGAGTGAACAAAGTTCTTAGACTACCTGCAA 404
QY 361 GTATTTTGTGTGTAATTAACCGGAGTGAACCGGAAGT 402

Db 405 GAGTTCCTGGTGAATGAACACCGAGTGTATATAGAAAGT 446

RESULT 13
AAA13338
ID AAA13338 standard; cDNA; 816 BP.
XX
AC AAA13338;
XX
DT 25-JUL-2000 (first entry)
XX
DE Human interleukin-5 (IL-5) nucleotide sequence.
XX
KW Human; interleukin-5; IL-5; inflammatory disease; asthma; eczema;
KM antisense oligonucleotide; allergic rhinitis; inflammatory skin disease;
KW allergic conjunctivitis; inhibitor; ss.
XX
OS Homo sapiens.
XX
PN US6048726-A.
XX
PD 11-APR-2000.
XX
PF 15-MAY-1998; 98US-00079839.
XX
PR 15-MAY-1998; 98US-00079839.
XX
PA (WELT/) WELTMAN J K.
XX (KARI/) KARIM A S.
XX PI Weltman JK, Karim AS;
XX WPI; 2000-302784/26.
DR
XX
PT Oligonucleotide comprising non-natural internucleoside linkage, useful
PT for inhibiting interleukin-5 expression and treating inflammatory
PT diseases, asthma, allergic rhinitis, allergic conjunctivitis.
XX
PS Disclosure; Col 3-4; 11pp; English.
XX
CC This sequence represents the human interleukin-5 (IL-5) encoding
CC nucleotide sequence. Interleukin-5 is involved in eosinophilic
CC inflammation and inflammatory disorders. The present invention relates to
CC an IL-5 antisense oligonucleotide (see AAA13337) which inhibits the
CC expression of IL-5. The antisense oligonucleotide has at least one non-
CC natural internucleoside linkage. The oligonucleotide is able to inhibit
CC IL-5 secretion in a dose dependent manner, and is useful for inhibiting
CC allergic rhinitis, allergic conjunctivitis and inflammatory skin diseases
CC such as eczema
XX
SQ Sequence 816 BP; 277 A; 137 C; 164 G; 238 T; 0 U; 0 Other;
Query Match 69.0%; Score 277.2; DB 3; Length 816;
Best Local Similarity 80.6%; Pred. No. 1.2e-72;
Matches 324; Conservative 0; Mismatches 78; Indels 0; Gaps 0;

QY 1 ATGGAATGCTTCTGAATTTGAGTTTGTACTCTTGCGGCTGCTATGTTTCTGCTTT 60
DB 45 ATGAGATGCTTCTGCAATTTGAGTTTGTACTCTTGAGGCTGCTATGTTTCTGCTTT 104
QY 61 GCTGTAGAAAATCCCAAGATAGACTGTGTGCAAGAGACTTGACATCTTCCACTCAT 120
DB 105 CCCACAGAAAATTTCCACAAAGGATGTTGTGTAAGAGACTTGCGACTCTTCTTCACTCAT 164
QY 121 CGAATCTGGCTGATAGGCGATGGAGAACTGATGATTTCTTCTCTGAAAATTAATGAC 180
DB 165 CGAACTCTGCTGATAGGCAATGAGACTCTTGAGATTTCTTCTTCTGATCAATTAATGAC 224
QY 181 CAATCTGCAATTAAGAAAGTTTTCAGGGTATAGACATTTGAAGAACCAATGCCCCAC 240
DB 225 CAATCTGCACTGAAGAAATCTTTCAGGGATAGGCACTGAGAGATCAATCAATCTGTGCA 284

QY 241 GGGGAGCTGTGATAACTATTTCAAAACCTTCTTTATTAATAAGACATAGACGCC 300
DB 285 GGGGATCTGTGAAAGACTATTCAAAACTTGTCTTATTAATAAGAAATACATGACGCC 344
QY 301 CAAAAAAGAGTGTGAGAGAAAGATGAGAGTGAACAAGTTCTTACTACTGCA 360
DB 345 CAAAAAAGAGTGTGAGAGAAAGACGAGAGTAAACCAATTCCTTACTACTGCA 404
QY 361 GTATTCTGTGTATTAACACCGAGTGGACACCGGAAGT 402
DB 405 GAGTTCCTGGTGAATGAACACCGAGTGTATATAGAAAGT 446

RESULT 14
AAF20979
ID AAF20979 standard; DNA; 816 BP.
XX
AC AAF20979;
XX
DT 14-MAR-2001 (first entry)
XX
DE Human low adenosine antisense oligonucleotide related sequence #2546.
XX
KW low adenosine antisense oligonucleotide; phosphorothioate; allergy;
KW human; airway disorder; bronchoconstriction; lung inflammation;
KW surfactant depletion; respiratory; bronchodilator; antiinflammatory;
KW immunosuppressive; antiasthmatic; analgesic; hypotensive; cytostatic;
KW respiratory obstruction; pulmonary obstruction; impeded respiration;
KW surfactant hypoproduction; pulmonary vasoconstriction; asthma; RDS;
KW respiratory distress syndrome; pain; cystic fibrosis; allergic rhinitis;
KW pulmonary hypertension; emphysema; pulmonary transplantation rejection;
KW chronic obstructive pulmonary disease; pulmonary infection; bronchitis;
KW cancer; ss.
XX
XX
OS Homo sapiens.
XX
PN WO200062736-A2.
XX
PD 26-OCT-2000.
XX
PF 24-MAR-2000; 2000WO-US008020.
XX
PR 06-APR-1999; 99US-0127958P.
XX
PA (UYEC-) UNIV EAST CAROLINA.
XX (NYCE/) NYCE J W.
XX NYCE JW;
XX WPI; 2000-679539/66.
DR
XX
PT Low adenosine (A) content antisense oligonucleotides which do not trigger
PT adenosine receptors during metabolism, useful e.g. for treating cancers
PT and respiratory obstructions.
XX
PS Disclosure; Page 788; 1592pp; English.
XX
CC The present invention describes low adenosine (A) content antisense
CC oligonucleotides and compositions (I) comprising them. In the antisense
CC oligonucleotides the A is replaced by a 'universal' or alternative base.
CC (I) can have respiratory, bronchodilator, antiinflammatory, analgesic,
CC immunosuppressive, antiasthmatic, hypotensive and cytostatic activities.
CC The antisense oligonucleotides and (I) can be used to down-regulate the
CC expression and or activity of target polypeptides associated with
CC lung/respiratory disorders and malignancies, such as stimulating and
CC activating peptide factors and transmitters, transcription factors,
CC immunoglobulins and antibodies, antibody receptors, cytokines and
CC chemokines, endogenously produced specific and non-specific enzymes,
CC binding proteins, adhesion molecules and their receptors, cytokine and
CC chemokine receptors, adenosine receptors, bradykinin receptors, central
CC nervous system (CNS) and peripheral nervous and non-nervous system
CC receptors, CNS and peripheral nervous and non-nervous system peptide
CC transmitters, defensins, growth factors, vasoactive peptides and

CC receptors, binding proteins and malignancy associated proteins. The
CC antinease oligonucleotides may be used in this way to treat disorders
CC including respiratory obstruction (especially pulmonary obstruction
CC and/or bronchoconstriction) and/or lung inflammation, allergy(ies) and/or
CC surfactant hypoproduction which are associated with a disease or
CC condition selected from pulmonary vasoconstriction, inflammation,
CC allergies, asthma, impeded respiration, respiratory distress syndrome
CC (RDS), pain, cystic fibrosis (CF), allergic rhinitis (AR), pulmonary
CC hypertension, emphysema, chronic obstructive pulmonary disease (COPD),
CC pulmonary transplantation rejection, pulmonary infections, bronchitis,
CC and/or cancer. AAF18434 to AAF21543 represent human polynucleotide
CC fragments and antinease oligonucleotides used in the exemplification of
CC the present invention
XX
XX
SQ Sequence 816 BP; 277 A; 137 C; 164 G; 238 T; 0 U; 0 Other;
XX
XX
Query Match 69.0%; Score 277.2; DB 3; Length 816;
Best Local Similarity 80.6%; Pred. No. 1.2e-72;
Matches 324; Conservative 0; Mismatches 78; Indels 0; Gaps 0;
QY 1 ATGAGAAATGCTTGAATTTGAGTTGCTAGCTTTGGGCTGCTATGTTTCTGCTTT 60
DB 45 ATGAGAGATGCTTGAATTTGAGTTGCTAGCTTTGGGCTGCTATGTTTCTGCTTT 104
QY 61 GCTGTGAAAATCCCATGATAGACGTGTGCGAGACCTTGACCTGCTCTGCACTCAT 120
DB 105 CCACAGAAAATCCCATGATAGACGTGTGCGAGACCTTGACCTGCTCTGCACTCAT 164
QY 121 CGAAGTTGGCTGATAGGCGATGGAGACCTGATGTTCTCTGCTGCTGCTGCTGCTGCT 180
DB 165 CGAAGTTGGCTGATAGGCGATGGAGACCTGATGTTCTCTGCTGCTGCTGCTGCTGCT 224
QY 181 CAACTGTGATTAAGAAAGTTTTCAGGGTATAGACATTTGAAGAACCAATGCCCCAC 240
DB 225 CAACTGTGATTAAGAAAGTTTTCAGGGTATAGACATTTGAAGAACCAATGCCCCAC 284
QY 241 GGGGAGCTGTGATTAACATTTCCAAACTTGTCTTTATTAAGAACCATAGAGCGC 300
DB 285 GGGGAGCTGTGATTAACATTTCCAAACTTGTCTTTATTAAGAACCATAGAGCGC 344
QY 301 CAAAAAAGAGTGTGAGAGAAAGATGAGAGTGAAGTTCCTAGACTGCTGCA 360
DB 345 CAAAAAAGAGTGTGAGAGAAAGATGAGAGTGAAGTTCCTAGACTGCTGCA 404
QY 361 GTATTTCTGTGTATTAACACCGAGTGAACCCGGAAGT 402
DB 405 GAGTTCTGTGTATTAACACCGAGTGAATATGAAGT 446
RESULT 15
ADG33104
ID ADG33104 standard; DNA; 816 BP.
XX
XX
AC ADG33104;
XX
XX
DT 26-FEB-2004 (first entry)
XX
XX
DE Human DNA differentially expressed in patients with SLE SegID428.
XX
XX
KW human; ds; autoimmune; chronic inflammatory disease; SLE;
KW systemic lupus erythematosus; rheumatoid arthritis; cholecystitis;
KW Sjogren's disease; CREST syndrome; scleroderma; ankylosing spondylitis;
KW ulcerative colitis; primary sclerosing cholangitis; appendicitis;
KW diverticulitis; primary biliary sclerosis.
XX
XX
OS Homo sapiens.
XX
XX
PN WO2003090694-A2.
XX
XX
PD 06-NOV-2003.
XX
XX
PF 24-APR-2003; 2003WO-US013015.
XX

PR 24-APR-2002; 2002US-00131827.
XX
XX
PA (EXPR-) EXPRESSION DIAGNOSTICS INC.
XX
XX
PI Wohlgemuth J, Fry K, Woodward R, Ly N;
XX
XX
DR WPI; 2003-877243/81.
XX
XX
PT Diagnosing or monitoring autoimmune and chronic inflammatory diseases,
PT such as rheumatoid arthritis, systemic lupus erythematosus, ulcerative
PT colitis, psoriasis and asthma by detecting the expression level of one or
PT more genes.
XX
XX
PS Claim 18; SEQ ID NO 428; 877bp; English.
XX
XX
CC This invention relates to novel methods for diagnosing and monitoring
CC autoimmune and chronic inflammatory diseases. Specifically, it refers to
CC the identification of genes that have a clinical utility as diagnostic
CC tools for the management of, in particular, patients with systemic lupus
CC erythematosus (SLE) or rheumatoid arthritis (RA). Accordingly, the
CC present invention describes a method for determining the levels of
CC multiple differentially expressed genes of a patient, in a concerted
CC manner, in order to achieve an improved diagnostic assay with sensitivity
CC and specificity for the disease in question. As such, these genes are
CC useful for the diagnosis of various other inflammatory disorders
CC including cholecystitis, Sjogren's disease, CREST syndrome, scleroderma,
CC ankylosing spondylitis, ulcerative colitis, primary sclerosing
CC cholangitis, appendicitis, diverticulitis, and primary biliary sclerosis.
CC This polynucleotide is a DNA sequence representing human mRNA that is
CC differentially expressed in patients with SLE, used in an exemplification
CC of the invention.
XX
XX
SQ Sequence 816 BP; 276 A; 137 C; 165 G; 238 T; 0 U; 0 Other;
XX
XX
Query Match 69.0%; Score 277.2; DB 10; Length 816;
Best Local Similarity 80.6%; Pred. No. 1.2e-72;
Matches 324; Conservative 0; Mismatches 78; Indels 0; Gaps 0;
QY 1 ATGAGAAATGCTTGAATTTGAGTTGCTAGCTTTGGGCTGCTATGTTTCTGCTTT 60
DB 45 ATGAGAGATGCTTGAATTTGAGTTGCTAGCTTTGGGCTGCTATGTTTCTGCTTT 104
QY 61 GCTGTGAAAATCCCATGATAGACGTGTGCGAGACCTTGACCTGCTCTGCACTCAT 120
DB 105 CCACAGAAAATCCCATGATAGACGTGTGCGAGACCTTGACCTGCTCTGCACTCAT 164
QY 121 CGAAGTTGGCTGATAGGCGATGGAGACCTGATGTTCTCTGCTGCTGCTGCTGCTGCT 180
DB 165 CGAAGTTGGCTGATAGGCGATGGAGACCTGATGTTCTCTGCTGCTGCTGCTGCTGCT 224
QY 181 CAACTGTGATTAAGAAAGTTTTCAGGGTATAGACATTTGAAGAACCAATGCCCCAC 240
DB 225 CAACTGTGATTAAGAAAGTTTTCAGGGTATAGACATTTGAAGAACCAATGCCCCAC 284
QY 241 GGGGAGCTGTGATTAACATTTCCAAACTTGTCTTTATTAAGAACCATAGAGCGC 300
DB 285 GGGGAGCTGTGATTAACATTTCCAAACTTGTCTTTATTAAGAACCATAGAGCGC 344
QY 301 CAAAAAAGAGTGTGAGAGAAAGATGAGAGTGAAGTTCCTAGACTGCTGCA 360
DB 345 CAAAAAAGAGTGTGAGAGAAAGATGAGAGTGAAGTTCCTAGACTGCTGCA 404
QY 361 GTATTTCTGTGTATTAACACCGAGTGAACCCGGAAGT 402
DB 405 GAGTTCTGTGTATTAACACCGAGTGAATATGAAGT 446

Search completed: August 8, 2005, 09:19:50
Job time : 270.467 secs

GenCore version 5.1.6
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OM nucleic - nucleic search, using sw model

Run on: August 7, 2005, 09:34:25 ; Search time 333.467 Seconds
(without alignments)
7814.559 Million cell updates/sec

Title: US-10-787-382-7

Perfect score: 402
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Scoring table: IDENTITY NUC
Gapop 10.0, Gapext 1.0

Searched: 7297361 seqs, 3241162794 residues

Total number of hits satisfying chosen parameters: 14594722

Minimum DB seq length: 0
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Post-processing: Minimum Match 0%

Listing first 45 summaries

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25: /cgn2_6/ptodata/2/pubpna/US60_NEW_PUB.seq:*
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Pred. No. is the number of results predicted by chance to have a
score greater than or equal to the score of the result being printed,
and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	Query Match	Length	ID	Description
1	402	100.0	402	9	US-09-755-633-7
2	402	100.0	402	14	US-10-218-654-83
3	402	100.0	402	14	US-10-218-654-83
4	402	100.0	402	15	US-10-262-439-83
5	402	100.0	402	15	US-10-262-439-83
6	402	100.0	402	19	US-10-787-382-7

C	8	402	100.0	402	19	US-10-787-382-8	Sequence 8, Appli
C	9	402	100.0	610	9	US-09-755-633-4	Sequence 4, Appli
C	10	402	100.0	610	9	US-09-755-633-6	Sequence 6, Appli
C	11	402	100.0	610	14	US-10-218-654-80	Sequence 80, Appli
C	12	402	100.0	610	14	US-10-218-654-82	Sequence 82, Appli
C	13	402	100.0	610	15	US-10-262-439-80	Sequence 80, Appli
C	14	402	100.0	610	15	US-10-262-439-82	Sequence 82, Appli
C	15	402	100.0	610	15	US-10-787-382-4	Sequence 4, Appli
C	16	402	100.0	610	19	US-10-787-382-6	Sequence 6, Appli
C	17	345	85.8	345	9	US-09-755-633-9	Sequence 9, Appli
C	18	345	85.8	345	14	US-10-218-654-85	Sequence 85, Appli
C	19	345	85.8	345	14	US-10-218-654-87	Sequence 87, Appli
C	20	345	85.8	345	15	US-10-262-439-85	Sequence 85, Appli
C	21	345	85.8	345	15	US-10-262-439-87	Sequence 87, Appli
C	22	345	85.8	345	19	US-10-787-382-9	Sequence 9, Appli
C	23	345	85.8	345	19	US-10-787-382-11	Sequence 11, Appli
C	24	345	85.8	459	22	US-10-880-101A-85	Sequence 85, Appli
C	25	277.2	69.0	816	17	US-10-191-997-90	Sequence 90, Appli
C	26	277.2	69.0	816	21	US-10-929-182-4	Sequence 4, Appli
C	27	277.2	69.0	816	22	US-10-880-101A-87	Sequence 87, Appli
C	28	277.2	69.0	816	18	US-10-641-643-1236	Sequence 1236, Ap
C	29	275.6	68.6	858	16	US-10-295-074-8	Sequence 8, Appli
C	30	275.6	68.6	858	16	US-10-295-074-10	Sequence 10, Appli
C	31	275.6	68.6	858	20	US-10-846-911-8	Sequence 8, Appli
C	32	275.6	68.6	858	20	US-10-846-911-10	Sequence 10, Appli
C	33	275.6	68.6	671	9	US-09-755-633-21	Sequence 21, Appli
C	34	259	64.4	671	9	US-10-787-382-21	Sequence 21, Appli
C	35	259	64.4	864	16	US-10-295-074-12	Sequence 12, Appli
C	36	231.4	57.6	864	16	US-10-295-074-14	Sequence 14, Appli
C	37	231.4	57.6	864	20	US-10-846-911-12	Sequence 12, Appli
C	38	231.4	57.6	864	20	US-10-846-911-14	Sequence 14, Appli
C	39	145.8	36.3	1658	9	US-09-755-633-18	Sequence 18, Appli
C	40	145.8	36.3	1658	9	US-10-787-382-18	Sequence 18, Appli
C	41	145.8	35.9	1658	9	US-09-755-633-19	Sequence 19, Appli
C	42	144.2	35.9	1658	9	US-10-787-382-19	Sequence 19, Appli
C	43	144.2	35.9	1658	9	US-10-800-629A-78	Sequence 78, Appli
C	44	99.4	24.7	3230	19	US-10-679-532-78	Sequence 78, Appli
C	45	99.4	24.7	3230	19	US-10-679-532-78	Sequence 78, Appli

ALIGNMENTS

RESULT 1
US-09-755-633-7
; Sequence 7, Application US/09755633.
; Patent No. US20020127200A1
; GENERAL INFORMATION:
; APPLICANT: Yang, Shumin
; APPLICANT: McCall, Catherine A.
; APPLICANT: Weber, Eric R.
; TITLE OF INVENTION: CANINE AND FELINE IMMUNOREGULATORY PROTEINS, NUCLEIC
; FILE REFERENCE: IM-2-C1-C1
; CURRENT FILING DATE: 2001-01-05
; PRIOR FILING DATE: 1999-05-28
; PRIOR APPLICATION NUMBER: 60/087,306
; PRIOR FILING DATE: 1998-05-29
; NUMBER OF SEQ ID NOS: 21
; SOFTWARE: PatentIn Ver. 2.1
; SEQ ID NO 7
; LENGTH: 402
; TYPE: DNA
; ORGANISM: Canis familiaris
; US-09-755-633-7

Query Match 100.0%; Score 402; DB 9; Length 402;
Best Local Similarity 100.0%; Pred. No. 6.4e-115;
Matches 402; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
QY 1 ATGAGAATGCTTCGAAATTGAGTTGCTTACCTCTTGAGGCTGCTTATGTTCTGCTTT 60

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Db 61 GCTGTAGAAAAATCCCATGAAATAGACTGATGGCAGAGACCTTGAACATGCTCCACTCAT 120
Qy 121 CGAATCTGGCTGATAGGCGATGGGAACCTGATGATTCCTACTCTGAAAAATAAAAATCAC 180
Db 121 CGAATCTGGCTGATAGGCGATGGGAACCTGATGATTCCTACTCTGAAAAATAAAAATCAC 180
Qy 181 CAACGTGCACTTAAGAAGTTTTCAGGGTATACACATTTGAAGAACCAACCTGCCAC 240
Db 181 CAACGTGCACTTAAGAAGTTTTCAGGGTATACACATTTGAAGAACCAACCTGCCAC 240
Qy 241 GGGGAGGCTGTGATTAACATTAATCCAAAATCTTCTTAATTAAGAACAATAGAGCGC 300
Db 241 GGGGAGGCTGTGATTAACATTAATCCAAAATCTTCTTAATTAAGAACAATAGAGCGC 300
Qy 301 CAAAAAAGAGTGTGCGAGGAGAAAGATGAGAGTGAACAAAGTTCTTAGACTACCTGCAA 360
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Qy 361 GTATTTCTTGCTGTAATTAACACGAGTGCACACCGGAAAGT 402
Db 361 GTATTTCTTGCTGTAATTAACACGAGTGCACACCGGAAAGT 402
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RESULT 2

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US-09-755-633-8/C
Sequence 8, Application US/09755633
Patent No. US20020127200A1
GENERAL INFORMATION:
APPLICANT: Yang, Shumin
APPLICANT: McCall, Catherine A.
TITLE OF INVENTION: CANINE AND FELINE IMMUNOREGULATORY PROTEINS, NUCLEIC
FILE REFERENCE: IM-2-C1-C1
CURRENT APPLICATION NUMBER: US/09/755,633
CURRENT FILING DATE: 2001-01-05
PRIOR APPLICATION NUMBER: 09/322,409
PRIOR FILING DATE: 1999-05-28
PRIOR APPLICATION NUMBER: 60/087,306
PRIOR FILING DATE: 1998-05-29
NUMBER OF SEQ ID NOS: 21
SOFTWARE: PatentIn Ver. 2.1
SEQ ID NO 8
LENGTH: 402
TYPE: DNA
ORGANISM: Canis familiaris
US-09-755-633-8
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Query Match 100.0%; Score 402; DB 9; Length 402;

Best Local Similarity 100.0%; Pred. No. 6,4e-115;

Matches 402; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

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Qy 61 GCTGTAGAAAAATCCCATGAAATAGACTGATGGCAGAGACCTTGAACATGCTCCACTCAT 120
Db 342 GCTGTAGAAAAATCCCATGAAATAGACTGATGGCAGAGACCTTGAACATGCTCCACTCAT 283
Qy 121 CGAATCTGGCTGATAGGCGATGGGAACCTGATGATTCCTACTCTGAAAAATAAAAATCAC 180
Db 121 CGAATCTGGCTGATAGGCGATGGGAACCTGATGATTCCTACTCTGAAAAATAAAAATCAC 223
Qy 282 CGAATCTGGCTGATAGGCGATGGGAACCTGATGATTCCTACTCTGAAAAATAAAAATCAC 223
Db 181 CAACGTGCACTTAAGAAGTTTTCAGGGTATACACATTTGAAGAACCAACCTGCCAC 240
Qy 361 GTATTTCTTGCTGTAATTAACACGAGTGCACACCGGAAAGT 402
Db 222 CAACGTGCACTTAAGAAGTTTTCAGGGTATACACATTTGAAGAACCAACCTGCCAC 163
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Qy 241 GGGGAGGCTGTGATTAACATTAATCCAAAATCTTCTTAATTAAGAACAATAGAGCGC 300
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Qy 301 CAAAAAAGAGTGTGCGAGGAGAAAGATGAGAGTGAACAAAGTTCTTAGACTACCTGCAA 360
Db 102 CAAAAAAGAGTGTGCGAGGAGAAAGATGAGAGTGAACAAAGTTCTTAGACTACCTGCAA 43
Qy 361 GTATTTCTTGCTGTAATTAACACGAGTGCACACCGGAAAGT 402
Db 42 GTATTTCTTGCTGTAATTAACACGAGTGCACACCGGAAAGT 1
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RESULT 3

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US-10-218-654-83
Sequence 83, Application US/10218654
Publication No. US20030099609A1
GENERAL INFORMATION:
APPLICANT: Sim, Gek-kee
APPLICANT: Yang, Shumin
APPLICANT: Dreitz, Matthew J.
APPLICANT: Mondeling, Ramani S.
TITLE OF INVENTION: CANINE AND FELINE IMMUNOREGULATORY PROTEINS, NUCLEIC
FILE REFERENCE: IM-2-C1
CURRENT APPLICATION NUMBER: US/10/218,654
CURRENT FILING DATE: 2002-08-13
PRIOR APPLICATION NUMBER: US/09/322,409
PRIOR FILING DATE: 1999-05-28
PRIOR APPLICATION NUMBER: 60/087,306
PRIOR FILING DATE: 1998-05-29
NUMBER OF SEQ ID NOS: 154
SOFTWARE: PatentIn Ver. 2.0
SEQ ID NO 83
LENGTH: 402
TYPE: DNA
ORGANISM: Canis familiaris
US-10-218-654-83
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Query Match 100.0%; Score 402; DB 14; Length 402;

Best Local Similarity 100.0%; Pred. No. 6,4e-115;

Matches 402; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

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Qy 1 ATGGAATGCTCTGGAATTTGAGTTTCTACTCTTGGGCTGGCTTAATTTCTGCCTTT 60
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Db 61 GCTGTAGAAAAATCCCATGAAATAGACTGATGGCAGAGACCTTGAACATGCTCCACTCAT 120
Qy 121 CGAATCTGGCTGATAGGCGATGGGAACCTGATGATTCCTACTCTGAAAAATAAAAATCAC 180
Db 121 CGAATCTGGCTGATAGGCGATGGGAACCTGATGATTCCTACTCTGAAAAATAAAAATCAC 180
Qy 181 CAACGTGCACTTAAGAAGTTTTCAGGGTATAGACATTTGAAGAACCAACCTGCCAC 240
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Qy 301 CAAAAAAGAGTGTGCGAGGAGAAAGATGAGAGTGAACAAAGTTCTTAGACTACCTGCAA 360
Db 301 CAAAAAAGAGTGTGCGAGGAGAAAGATGAGAGTGAACAAAGTTCTTAGACTACCTGCAA 360
Qy 361 GTATTTCTTGCTGTAATTAACACGAGTGCACACCGGAAAGT 402
Db 361 GTATTTCTTGCTGTAATTAACACGAGTGCACACCGGAAAGT 402
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RESULT 4

US-10-218-654-84/c
; Sequence 84, Application US/10218654
; Publication No. US20030099609A1
; GENERAL INFORMATION:
; APPLICANT: Sim, Gek-kee
; APPLICANT: Yang, Shumin
; APPLICANT: Dreitz, Matthew J.
; APPLICANT: Wonderling, Ramani S.
; TITLE OF INVENTION: CANINE AND FELINE IMMUNOREGULATORY PROTEINS, NUCLEIC
; FILE REFERENCE: IM-2-C1
; CURRENT APPLICATION NUMBER: US/10/218, 654
; PRIOR FILING DATE: 2002-08-13
; PRIOR APPLICATION NUMBER: US/09/322,409
; PRIOR FILING DATE: 1999-05-28
; PRIOR APPLICATION NUMBER: 60/087,306
; PRIOR FILING DATE: 1998-05-29
; NUMBER OF SEQ ID NOS: 154
; SOFTWARE: PatentIn Ver. 2.0
; SEQ ID NO 84
; LENGTH: 402
; TYPE: DNA
; ORGANISM: Canis familiaris
US-10-218-654-84

Query Match 100.0%; Score 402; DB 14; Length 402;
Best Local Similarity 100.0%; Pred. No. 6,4e-115;
Matches 402; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

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Qy 181 CAACGTGCAATTAAGAAGTTTTCAGGGTATAGACATTTGAAGAACCAAACTGCCAC 240
Db 222 CAACGTGCAATTAAGAAGTTTTCAGGGTATAGACATTTGAAGAACCAAACTGCCAC 163
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Db 162 GGGAGGCTGTGATTAACATATTCCTCAAACTTGTCTTTAATTAAGAACAATAGAGCGC 103
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Db 42 GTATTTCTTGCTGATTAACACCGAGTGAACCGGAAAGT 1

RESULT 5
US-10-262-439-83
; Sequence 83, Application US/10262439
; Publication No. US20030143196A1
; GENERAL INFORMATION:
; APPLICANT: Sim, Gek-kee
; APPLICANT: Yang, Shumin
; APPLICANT: Dreitz, Matthew J.
; APPLICANT: Wonderling, Ramani S.
; TITLE OF INVENTION: CANINE AND FELINE IMMUNOREGULATORY PROTEINS, NUCLEIC
; FILE REFERENCE: IM-2-C2
; CURRENT APPLICATION NUMBER: US/10/262,439
; PRIOR FILING DATE: 2002-09-30
; PRIOR APPLICATION NUMBER: US/09/451,527

PRIOR FILING DATE: 1999-12-01
; PRIOR APPLICATION NUMBER: 09/322,409
; PRIOR FILING DATE: 1999-05-28
; PRIOR APPLICATION NUMBER: 60/087,306
; PRIOR FILING DATE: 1998-05-29
; NUMBER OF SEQ ID NOS: 174
; SOFTWARE: PatentIn Ver. 2.0
; SEQ ID NO 83
; LENGTH: 402
; TYPE: DNA
; ORGANISM: Canis familiaris
US-10-262-439-83

Query Match 100.0%; Score 402; DB 15; Length 402;
Best Local Similarity 100.0%; Pred. No. 6,4e-115;
Matches 402; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

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Qy 61 GCTGTAGAAAATCCCATGAATAGACTGTGCGAGAGACTTGAACATGCTCTCCATCAT 120
Db 61 GCTGTAGAAAATCCCATGAATAGACTGTGCGAGAGACTTGAACATGCTCTCCATCAT 120
Qy 121 CGAAGCTGGCTGATAGGCGATGGGAACTGATGATCTTCTACTCCTGAAAATTAATAATCAC 180
Db 121 CGAAGCTGGCTGATAGGCGATGGGAACTGATGATCTTCTACTCCTGAAAATTAATAATCAC 180
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Db 181 CAACGTGCAATTAAGAAGTTTTCAGGGTATAGACATTTGAAGAACCAAACTGCCAC 240
Qy 241 GGGAGGCTGTGATTAACATATTCCTCAAACTTGTCTTTAATTAAGAACAATAGAGCGC 300
Db 241 GGGAGGCTGTGATTAACATATTCCTCAAACTTGTCTTTAATTAAGAACAATAGAGCGC 300
Qy 301 CAAAGAAAAGAGTGTGCGAGGAAAGATGAGAGTGAACAAAGTCTTAGACTTACCTGCA 360
Db 301 CAAAGAAAAGAGTGTGCGAGGAAAGATGAGAGTGAACAAAGTCTTAGACTTACCTGCA 360
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RESULT 6
US-10-262-439-84/c
; Sequence 84, Application US/10262439
; Publication No. US20030143196A1
; GENERAL INFORMATION:
; APPLICANT: Sim, Gek-kee
; APPLICANT: Yang, Shumin
; APPLICANT: Dreitz, Matthew J.
; APPLICANT: Wonderling, Ramani S.
; TITLE OF INVENTION: CANINE AND FELINE IMMUNOREGULATORY PROTEINS, NUCLEIC
; FILE REFERENCE: IM-2-C2
; CURRENT APPLICATION NUMBER: US/10/262,439
; PRIOR FILING DATE: 2002-09-30
; PRIOR APPLICATION NUMBER: US/09/451,527
; PRIOR FILING DATE: 1999-12-01
; PRIOR APPLICATION NUMBER: 09/322,409
; PRIOR FILING DATE: 1999-05-28
; PRIOR APPLICATION NUMBER: 60/087,306
; PRIOR FILING DATE: 1998-05-29
; NUMBER OF SEQ ID NOS: 174
; SOFTWARE: PatentIn Ver. 2.0
; SEQ ID NO 84
; LENGTH: 402
; TYPE: DNA
; ORGANISM: Canis familiaris
US-10-262-439-84

Query Match 100.0%; Score 402; DB 15; Length 402;
Best Local Similarity 100.0%; Pred. No. 6,4e-115;
Matches 402; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

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DB 402 ATGAGAAATGCTTCTGATTTGAGTTTCTAGCTTCTGGGCTGCTATGTTTCTGCTTT 343
QY 61 GCTGTAGAAAATCCCATGATAGACTGTGTGAGAGACTTGCACACTGCTCCACTCAT 120
DB 342 GCTGTAGAAAATCCCATGATAGACTGTGTGAGAGACTTGCACACTGCTCCACTCAT 283
QY 121 CGAATTGCTGTATAGGCGATGGGAACCTGATATCTTACTCTCTGAAAATAAAATCAC 180
DB 282 CGAATTGCTGTATAGGCGATGGGAACCTGATATCTTACTCTCTGAAAATAAAATCAC 223
QY 181 CAACGTGCAATTAAGAAGTTTTCAGGGTATAGACATTGAAGAACCAACTGCCAC 240
DB 222 CAACGTGCAATTAAGAAGTTTTCAGGGTATAGACATTGAAGAACCAACTGCCAC 163
QY 241 GGGAGGCTGTGATTAACCTATTCCTTAATTAAGAACAATAGAGCGC 300
DB 162 GGGAGGCTGTGATTAACCTATTCCTTAATTAAGAACAATAGAGCGC 103
QY 301 CAAAAAAGGTGTGAGAGAGAAAGATGAGAGTGAAGATTCTTACCTGCA 360
DB 102 CAAAAAAGGTGTGAGAGAGAAAGATGAGAGTGAAGATTCTTACCTGCA 43
QY 361 GTATTTCTTGTGTAAATAACCCGAGTGAACCCGAAAGT 402
DB 42 GTATTTCTTGTGTAAATAACCCGAGTGAACCCGAAAGT 1
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RESULT 7

US-10-787-382-7
Sequence 7, Application US/10787382
Publication No. US20040191868A1
GENERAL INFORMATION:
APPLICANT: Yang, Shumin
APPLICANT: McCall, Catherine A.
APPLICANT: Weber, Eric R.
TITLE OF INVENTION: CANINE AND FELINE IMMUNOREGULATORY PROTEINS, NUCLEIC
FILE REFERENCE: IM-2-C1-C1
CURRENT APPLICATION NUMBER: US/10/787,382
PRIOR FILING DATE: 2004-02-24
PRIOR APPLICATION NUMBER: US/09/755,633
PRIOR FILING DATE: 2001-01-05
PRIOR APPLICATION NUMBER: 09/322,409
PRIOR FILING DATE: 1999-05-28
PRIOR APPLICATION NUMBER: 60/087,306
PRIOR FILING DATE: 1998-05-29
NUMBER OF SEQ ID NOS: 21
SOFTWARE: PatentIn Ver. 2.1
SEQ ID NO 7
LENGTH: 402
TYPE: DNA
ORGANISM: Canis familiaris
US-10-787-382-7

Query Match 100.0%; Score 402; DB 19; Length 402;
Best Local Similarity 100.0%; Pred. No. 6,4e-115;
Matches 402; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

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QY 1 ATGAGAAATGCTTCTGATTTGAGTTTCTAGCTTCTGGGCTGCTATGTTTCTGCTTT 60
DB 1 ATGAGAAATGCTTCTGATTTGAGTTTCTAGCTTCTGGGCTGCTATGTTTCTGCTTT 60
QY 61 GCTGTAGAAAATCCCATGATAGACTGTGTGAGAGACTTGCACACTGCTCCACTCAT 120
DB 61 GCTGTAGAAAATCCCATGATAGACTGTGTGAGAGACTTGCACACTGCTCCACTCAT 120
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QY 121 CGAATTGCTGTATAGCGCATGGGAACCTGATGATTTCTTACTCTGAAAATAAAATCAC 180
DB 121 CGAATTGCTGTATAGCGCATGGGAACCTGATGATTTCTTACTCTGAAAATAAAATCAC 180
QY 181 CAACGTGCAATTAAGAAGTTTTCAGGGTATAGACATTGAAGAACCAACTGCCAC 240
DB 181 CAACGTGCAATTAAGAAGTTTTCAGGGTATAGACATTGAAGAACCAACTGCCAC 240
QY 241 GGGAGGCTGTGATTAACCTATTCCTTAATTAAGAACAATAGAGCGC 300
DB 241 GGGAGGCTGTGATTAACCTATTCCTTAATTAAGAACAATAGAGCGC 300
QY 301 CAAAAAAGGTGTGAGAGAGAAAGATGAGAGTGAAGATTCTTACCTGCA 360
DB 301 CAAAAAAGGTGTGAGAGAGAAAGATGAGAGTGAAGATTCTTACCTGCA 360
QY 361 GTATTTCTTGTGTAAATAACCCGAGTGAACCCGAAAGT 402
DB 361 GTATTTCTTGTGTAAATAACCCGAGTGAACCCGAAAGT 402
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RESULT 8

US-10-787-382-8/c
Sequence 8, Application US/10787382
Publication No. US20040191868A1
GENERAL INFORMATION:
APPLICANT: Yang, Shumin
APPLICANT: McCall, Catherine A.
APPLICANT: Weber, Eric R.
TITLE OF INVENTION: CANINE AND FELINE IMMUNOREGULATORY PROTEINS, NUCLEIC
FILE REFERENCE: IM-2-C1-C1
CURRENT APPLICATION NUMBER: US/10/787,382
PRIOR FILING DATE: 2004-02-24
PRIOR APPLICATION NUMBER: US/09/755,633
PRIOR FILING DATE: 2001-01-05
PRIOR APPLICATION NUMBER: 09/322,409
PRIOR FILING DATE: 1999-05-28
PRIOR APPLICATION NUMBER: 60/087,306
PRIOR FILING DATE: 1998-05-29
NUMBER OF SEQ ID NOS: 21
SOFTWARE: PatentIn Ver. 2.1
SEQ ID NO 8
LENGTH: 402
TYPE: DNA
ORGANISM: Canis familiaris
US-10-787-382-8

Query Match 100.0%; Score 402; DB 19; Length 402;
Best Local Similarity 100.0%; Pred. No. 6,4e-115;
Matches 402; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

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QY 1 ATGAGAAATGCTTCTGATTTGAGTTTCTAGCTTCTGGGCTGCTATGTTTCTGCTTT 60
DB 402 ATGAGAAATGCTTCTGATTTGAGTTTCTAGCTTCTGGGCTGCTATGTTTCTGCTTT 343
QY 61 GCTGTAGAAAATCCCATGATAGACTGTGTGAGAGACTTGCACACTGCTCCACTCAT 120
DB 342 GCTGTAGAAAATCCCATGATAGACTGTGTGAGAGACTTGCACACTGCTCCACTCAT 283
QY 121 CGAATTGCTGTATAGGCGCATGGGAACCTGATGATTTCTTACTCTGAAAATAAAATCAC 180
DB 282 CGAATTGCTGTATAGGCGCATGGGAACCTGATGATTTCTTACTCTGAAAATAAAATCAC 223
QY 181 CAACGTGCAATTAAGAAGTTTTCAGGGTATAGACATTGAAGAACCAACTGCCAC 240
DB 222 CAACGTGCAATTAAGAAGTTTTCAGGGTATAGACATTGAAGAACCAACTGCCAC 163
QY 241 GGGAGGCTGTGATTAACCTATTCCTTAATTAAGAACAATAGAGCGC 300
DB 162 GGGAGGCTGTGATTAACCTATTCCTTAATTAAGAACAATAGAGCGC 103
QY 301 CAAAAAAGGTGTGAGAGAGAAAGATGAGAGTGAAGATTCTTACCTGCA 360
```

Db 102 CAAAAAAGTGTGAGAGAAAGATGAGAGTGAAGAGTTCTAGACTACCTGCAA 43
Qy 361 GTATTTCTGTGTAATTAACACCGAGTGAACCCGGAAGT 402
Db 42 GTATTTCTGTGTAATTAACACCGAGTGAACCCGGAAGT 1

RESULT 9

US-09-755-633-4
Sequence 4, Application US/09755633
Patent No. US20020127200A1
GENERAL INFORMATION:
APPLICANT: Yang, Shumin
APPLICANT: McCall, Catherine A.
APPLICANT: Weber, Eric R.
TITLE OF INVENTION: CANINE AND FELINE IMMUNOREGULATORY PROTEINS, NUCLEIC
FILE REFERENCE: IM-2-C1-C1
CURRENT APPLICATION NUMBER: US/09/755,633
CURRENT FILING DATE: 2001-01-05
PRIOR APPLICATION NUMBER: 09/322,409
PRIOR FILING DATE: 1999-05-28
PRIOR APPLICATION NUMBER: 60/087,306
PRIOR FILING DATE: 1998-05-29
NUMBER OF SEQ ID NOS: 21
SOFTWARE: PatentIn Ver. 2.1
SEQ ID NO 4
LENGTH: 610
TYPE: DNA
ORGANISM: Canis familiaris
FEATURE:
NAME/KEY: CDS
LOCATION: (29)..(430)
US-09-755-633-4

Query Match .100.0%; Score 402; DB 9; Length 610;

Best Local Similarity 100.0%; Pred. No. 8e-115;
Matches 402; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 ATGAGAAATGCTTCTGAAATTTGAGTTTGTAGCTCTTGGGGGCTGCTATGTTTTCGCTT 60
Db 29 ATGAGAAATGCTTCTGAAATTTGAGTTTGTAGCTCTTGGGGGCTGCTATGTTTTCGCTT 88
Qy 61 GCTGTAGAAAATCCCATGAAATAGACTGTGTGCAAGACCTTGAACCTGCTTCCACTCAT 120
Db 89 GCTGTAGAAAATCCCATGAAATAGACTGTGTGCAAGACCTTGAACCTGCTTCCACTCAT 148
Qy 121 CGAATCTGGCTGATAGGCGATGGGAACTGATGATTCCTACTCCGGAATTAATAATCAC 180
Db 149 CGAATCTGGCTGATAGGCGATGGGAACTGATGATTCCTACTCCGGAATTAATAATCAC 208
Qy 181 CAACTGTGCAATTAAGAAGTTTTCAGGGTATAGACATTTGAAGAACCAATGCGCCAC 240
Db 209 CAACTGTGCAATTAAGAAGTTTTCAGGGTATAGACATTTGAAGAACCAATGCGCCAC 268
Qy 241 GGGGAGGCTGTGATTAACCTATTCCTCAAACTGCTTTAATTAATAAGAACATAGAGCGC 300
Db 269 GGGGAGGCTGTGATTAACCTATTCCTCAAACTGCTTTAATTAATAAGAACATAGAGCGC 328
Qy 301 CAAAAAAGAGTGTGAGAGAAAGATGAGAGTGAAGAGTTCCTAGACTACCTGCA 360
Db 329 CAAAAAAGAGTGTGAGAGAAAGATGAGAGTGAAGAGTTCCTAGACTACCTGCA 388
Qy 361 GTATTTCTGTGTAATTAACACCGAGTGAACCCGGAAGT 402
Db 389 GTATTTCTGTGTAATTAACACCGAGTGAACCCGGAAGT 430

RESULT 10
US-09-755-633-6/c
Sequence 6, Application US/09755633
Patent No. US20020127200A1

GENERAL INFORMATION:
APPLICANT: Yang, Shumin
APPLICANT: McCall, Catherine A.
APPLICANT: Weber, Eric R.
TITLE OF INVENTION: CANINE AND FELINE IMMUNOREGULATORY PROTEINS, NUCLEIC
FILE REFERENCE: IM-2-C1-C1
CURRENT APPLICATION NUMBER: US/09/755,633
CURRENT FILING DATE: 2001-01-05
PRIOR APPLICATION NUMBER: 09/322,409
PRIOR FILING DATE: 1999-05-28
PRIOR APPLICATION NUMBER: 60/087,306
PRIOR FILING DATE: 1998-05-29
NUMBER OF SEQ ID NOS: 21
SOFTWARE: PatentIn Ver. 2.1
SEQ ID NO 6
LENGTH: 610
TYPE: DNA
ORGANISM: Canis familiaris
US-09-755-633-6

Query Match 100.0%; Score 402; DB 9; Length 610;
Best Local Similarity 100.0%; Pred. No. 8e-115;
Matches 402; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 ATGAGAAATGCTTCTGAAATTTGAGTTTGTAGCTCTTGGGGGCTGCTATGTTTTCGCTT 60
Db 582 ATGAGAAATGCTTCTGAAATTTGAGTTTGTAGCTCTTGGGGGCTGCTATGTTTTCGCTT 523
Qy 61 GCTGTAGAAAATCCCATGAAATAGACTGTGTGCAAGACCTTGAACCTGCTTCCACTCAT 120
Db 522 GCTGTAGAAAATCCCATGAAATAGACTGTGTGCAAGACCTTGAACCTGCTTCCACTCAT 463
Qy 121 CGAATCTGGCTGATAGGCGATGGGAACTGATGATTCCTACTCCGGAATTAATAATCAC 180
Db 462 CGAATCTGGCTGATAGGCGATGGGAACTGATGATTCCTACTCCGGAATTAATAATCAC 403
Qy 181 CAACTGTGCAATTAAGAAGTTTTCAGGGTATAGACATTTGAAGAACCAATGCGCCAC 240
Db 402 CAACTGTGCAATTAAGAAGTTTTCAGGGTATAGACATTTGAAGAACCAATGCGCCAC 343
Qy 241 GGGGAGGCTGTGATTAACCTATTCCTCAAACTGCTTTAATTAATAAGAACATAGAGCGC 300
Db 342 GGGGAGGCTGTGATTAACCTATTCCTCAAACTGCTTTAATTAATAAGAACATAGAGCGC 283
Qy 301 CAAAAAAGAGTGTGAGAGAAAGATGAGAGTGAAGAGTTCCTAGACTACCTGCA 360
Db 282 CAAAAAAGAGTGTGAGAGAAAGATGAGAGTGAAGAGTTCCTAGACTACCTGCA 223
Qy 361 GTATTTCTGTGTAATTAACACCGAGTGAACCCGGAAGT 402
Db 222 GTATTTCTGTGTAATTAACACCGAGTGAACCCGGAAGT 181

RESULT 11

US-10-218-654-80
Sequence 80, Application US/10218654
Publication No. US20030099609A1
GENERAL INFORMATION:
APPLICANT: Sim, Gek-Kea
APPLICANT: Yang, Shumin
APPLICANT: Dreitz, Matthew J.
APPLICANT: Wondertling, Ramani S.
TITLE OF INVENTION: CANINE AND FELINE IMMUNOREGULATORY PROTEINS, NUCLEIC
FILE REFERENCE: IM-2-C1
CURRENT APPLICATION NUMBER: US/10/218,654
CURRENT FILING DATE: 2002-08-13
PRIOR APPLICATION NUMBER: US/09/322,409
PRIOR FILING DATE: 1999-05-28
PRIOR APPLICATION NUMBER: 60/087,306
PRIOR FILING DATE: 1998-05-29
NUMBER OF SEQ ID NOS: 154

SOFTWARE: PatentIn Ver. 2.0
SEQ ID NO 80
LENGTH: 610
TYPE: DNA
ORGANISM: Canis familiaris
FEATURE:
NAME/KEY: CDS
LOCATION: (29)..(430)
US-10-218-654-80

Query Match 100.0%; Score 402; DB 14; Length 610;
Best Local Similarity 100.0%; Pred. No. 8e-115;
Matches 402; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 ATGAGATGCTTCTGAATTTGAGTTTCTAGCTTCTGGGGCTGCTATGTTTCTGCTTT 60
DB 29 ATGAGATGCTTCTGAATTTGAGTTTCTAGCTTCTGGGGCTGCTATGTTTCTGCTTT 88
QY 61 GCTGTAGAAAATCCCATGATAGACTGTGGCAGAGACCTTGACACTGCTCTCCACTCAT 120
DB 89 GCTGTAGAAAATCCCATGATAGACTGTGGCAGAGACCTTGACACTGCTCTCCACTCAT 148
QY 121 CGAAGCTGGCTGATAGGCGATGGGACCTGATGATTCCTACTCCTGAAAAATAAAATCAC 180
DB 149 CGAAGCTGGCTGATAGGCGATGGGACCTGATGATTCCTACTCCTGAAAAATAAAATCAC 208
QY 181 CAACGTGCATTAAGAAGATTTTTCAGGGTATAGACACATTTGAAGAACCAACTGCCAC 240
DB 209 CAACGTGCATTAAGAAGATTTTTCAGGGTATAGACACATTTGAAGAACCAACTGCCAC 268
QY 241 GGGAGGCTGTGATTAACATTTTCCAAACTTGTCTTAAATAAAGACATAGAGCGC 300
DB 269 GGGAGGCTGTGATTAACATTTTCCAAACTTGTCTTAAATAAAGACATAGAGCGC 328
QY 301 CAAAAAAGGTGTGCGAGAGAAAGATGAGAGTGAACAAAGTTCTAGACTACCTGCAA 360
DB 329 CAAAAAAGGTGTGCGAGAGAAAGATGAGAGTGAACAAAGTTCTAGACTACCTGCAA 388
QY 361 GTATTTCTGTGTATTAACACCGAGTGAACCGGAAAGT 402
DB 389 GTATTTCTGTGTATTAACACCGAGTGAACCGGAAAGT 430

RESULT 12
US-10-218-654-82/c
Sequence 82, Application US/10218654
Publication No. US20030099609A1
GENERAL INFORMATION:
APPLICANT: Sim, Gek-kee
APPLICANT: Yang, Shumin
APPLICANT: Drelitz, Matthew J.
APPLICANT: Wonderling, Ramani S.
TITLE OF INVENTION: CANINE AND FELINE IMMUNOREGULATORY PROTEINS, NUCLEIC
TITLE OF INVENTION: ACID MOLECULES, AND USES THEREOF
FILE REFERENCE: IM-2-C1
CURRENT APPLICATION NUMBER: US/10/218,654
PRIOR FILING DATE: 2002-08-13
PRIOR APPLICATION NUMBER: US/09/322,409
PRIOR FILING DATE: 1999-05-28
PRIOR APPLICATION NUMBER: 60/087,306
PRIOR FILING DATE: 1998-05-29
NUMBER OF SEQ ID NOS: 154
SOFTWARE: PatentIn Ver. 2.0
SEQ ID NO 82
LENGTH: 610
TYPE: DNA
ORGANISM: Canis familiaris
US-10-218-654-82

Query Match 100.0%; Score 402; DB 14; Length 610;
Best Local Similarity 100.0%; Pred. No. 8e-115;
Matches 402; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 ATGAGATGCTTCTGAATTTGAGTTTCTAGCTTCTGGGGCTGCTATGTTTCTGCTTT 60
DB 582 ATGAGATGCTTCTGAATTTGAGTTTCTAGCTTCTGGGGCTGCTATGTTTCTGCTTT 523
QY 61 GCTGTAGAAAATCCCATGATAGACTGTGGCAGAGACCTTGACACTGCTCTCCACTCAT 120
DB 522 GCTGTAGAAAATCCCATGATAGACTGTGGCAGAGACCTTGACACTGCTCTCCACTCAT 143
QY 121 CGAAGCTGGCTGATAGGCGATGGGACCTGATGATTCCTACTCCTGAAAAATAAAATCAC 180
DB 462 CGAAGCTGGCTGATAGGCGATGGGACCTGATGATTCCTACTCCTGAAAAATAAAATCAC 403
QY 181 CAACGTGCATTAAGAAGATTTTTCAGGGTATAGACACATTTGAAGAACCAACTGCCAC 240
DB 402 CAACGTGCATTAAGAAGATTTTTCAGGGTATAGACACATTTGAAGAACCAACTGCCAC 343
QY 241 GGGAGGCTGTGATTAACATTTCCAAACTTGTCTTAAATAAAGACATAGAGCGC 300
DB 342 GGGAGGCTGTGATTAACATTTCCAAACTTGTCTTAAATAAAGACATAGAGCGC 283
QY 301 CAAAAAAGGTGTGCGAGAGAAAGATGAGAGTGAACAAAGTTCTAGACTACCTGCAA 360
DB 282 CAAAAAAGGTGTGCGAGAGAAAGATGAGAGTGAACAAAGTTCTAGACTACCTGCAA 223
QY 361 GTATTTCTGTGTATTAACACCGAGTGAACCGGAAAGT 402
DB 222 GTATTTCTGTGTATTAACACCGAGTGAACCGGAAAGT 181

RESULT 13
US-10-262-439-80
Sequence 80, Application US/10262439
Publication No. US20030143196A1
GENERAL INFORMATION:
APPLICANT: Sim, Gek-kee
APPLICANT: Yang, Shumin
APPLICANT: Drelitz, Matthew J.
APPLICANT: Wonderling, Ramani S.
TITLE OF INVENTION: CANINE AND FELINE IMMUNOREGULATORY PROTEINS, NUCLEIC
TITLE OF INVENTION: ACID MOLECULES, AND USES THEREOF
FILE REFERENCE: IM-2-C2
CURRENT APPLICATION NUMBER: US/10/262,439
CURRENT FILING DATE: 2002-09-30
PRIOR APPLICATION NUMBER: US/09/451,527
PRIOR FILING DATE: 1999-12-01
PRIOR APPLICATION NUMBER: 09/322,409
PRIOR FILING DATE: 1999-05-28
PRIOR APPLICATION NUMBER: 60/087,306
PRIOR FILING DATE: 1998-05-29
NUMBER OF SEQ ID NOS: 174
SOFTWARE: PatentIn Ver. 2.0
SEQ ID NO 80
LENGTH: 610
TYPE: DNA
ORGANISM: Canis familiaris
FEATURE:
NAME/KEY: CDS
LOCATION: (29)..(430)
US-10-262-439-80

Query Match 100.0%; Score 402; DB 15; Length 610;
Best Local Similarity 100.0%; Pred. No. 8e-115;
Matches 402; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 ATGAGATGCTTCTGAATTTGAGTTTCTAGCTTCTGGGGCTGCTATGTTTCTGCTTT 60
DB 29 ATGAGATGCTTCTGAATTTGAGTTTCTAGCTTCTGGGGCTGCTATGTTTCTGCTTT 88
QY 61 GCTGTAGAAAATCCCATGATAGACTGTGGCAGAGACCTTGACACTGCTCTCCACTCAT 120
DB 89 GCTGTAGAAAATCCCATGATAGACTGTGGCAGAGACCTTGACACTGCTCTCCACTCAT 148
QY 121 CGAAGCTGGCTGATAGGCGATGGGACCTGATGATTCCTACTCCTGAAAAATAAAATCAC 180

Db 149 CGAAGTGGCTGTAAGGCGATGGAACTGATGATTCCTACTCTGAAAAATAAATAC 208
Qy 181 CAACGTGCATTAAAGATTTTTCAGGGTATAGACATTGAGAACCAACCTGCCAC 240
Db 209 CAACGTGCATTAAAGATTTTTCAGGGTATAGACATTGAGAACCAACCTGCCAC 268
Qy 241 GGGAGGCTGTGATTAACATAATTCACAACTGTCTTTAATTAAGAACATAGAGCG 300
Db 269 GGGAGGCTGTGATTAACATAATTCACAACTGTCTTTAATTAAGAACATAGAGCG 328
Qy 301 CAAAAAAGGTGTGACAGAGAAAGATGAGAGTGAACAAAGTTCTAGACTACCTCAA 360
Db 329 CAAAAAAGGTGTGACAGAGAAAGATGAGAGTGAACAAAGTTCTAGACTACCTCAA 388
Qy 361 GTATTTCTGTGATTAATTAACACCGAGTGCACCGGAAAGT 402
Db 389 GTATTTCTGTGATTAATTAACACCGAGTGCACCGGAAAGT 430

RESULT 14

US-10-262-439-82/c
Sequence 82, Application US/10262439
Publication No. US20030143196A1
GENERAL INFORMATION:
APPLICANT: Sim, Gek-Kea
APPLICANT: Yang, Shumin
APPLICANT: Dreitz, Matthew J.
TITLE OF INVENTION: CANINE AND FELINE IMMUNOREGULATORY PROTEINS, NUCLEIC
FILE REFERENCE: IM-2-C2
CURRENT APPLICATION NUMBER: US/10/262,439
CURRENT FILING DATE: 2002-09-30
PRIOR APPLICATION NUMBER: US/09/451,527
PRIOR FILING DATE: 1999-12-01
PRIOR APPLICATION NUMBER: 09/322,409
PRIOR FILING DATE: 1999-05-28
PRIOR APPLICATION NUMBER: 60/087,306
PRIOR FILING DATE: 1998-05-29
NUMBER OF SEQ ID NOS: 174
SOFTWARE: PatentIn Ver. 2.0
SEQ ID NO 82
LENGTH: 610
TYPE: DNA
ORGANISM: Canis familiaris
US-10-262-439-82

Query Match 100.0%; Score 402; DB 15; Length 610;
Best Local Similarity 100.0%; Pred. No. 8e-115;
Matches 402; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 ATGAGAAATGCTTGAATTTGAGTTTGTAGCTCTTGGGGCTGCTATGTTTTCCTTT 60
Db 582 ATGAGAAATGCTTGAATTTGAGTTTGTAGCTCTTGGGGCTGCTATGTTTTCCTTT 523
Qy 61 GCTGTAGAAAATCCCATGAATAGACTGTGTGCAGAGACCTTGAACATGCTTCCATCAT 120
Db 522 GCTGTAGAAAATCCCATGAATAGACTGTGTGCAGAGACCTTGAACATGCTTCCATCAT 463
Qy 121 CGAAGTGTGATAGGCGATGGGAACTGATGATTCCTACTCTGAAAAATTAATCAAC 180
Db 462 CGAAGTGTGATAGGCGATGGGAACTGATGATTCCTACTCTGAAAAATTAATCAAC 403
Qy 181 CAACGTGCATTAAAGAGTTTTCAGGGTATAGACATTTGAAGAACCAACTGCCAC 240
Db 402 CAACGTGCATTAAAGAGTTTTCAGGGTATAGACATTTGAAGAACCAACTGCCAC 343
Qy 241 GGGAGGCTGTGATTAACATAATTCACAACTGTCTTTAATTAAGAACATAGAGCG 300
Db 342 GGGAGGCTGTGATTAACATAATTCACAACTGTCTTTAATTAAGAACATAGAGCG 283
Qy 301 CAAAAAAGGTGTGACAGAGAAAGATGAGAGTGAACAAAGTTCTAGACTACCTCAA 360

Db 282 CAAAAAAGGTGTGACAGAGAAAGATGAGAGTGAACAAAGTTCTAGACTACCTCAA 223
Qy 361 GTATTTCTGTGATTAATTAACACCGAGTGCACCGGAAAGT 402
Db 222 GTATTTCTGTGATTAATTAACACCGAGTGCACCGGAAAGT 181

RESULT 15

US-10-787-382-4
Sequence 4, Application US/10787382
Publication No. US20040191868A1
GENERAL INFORMATION:
APPLICANT: Yang, Shumin
APPLICANT: McCall, Catherine A.
APPLICANT: Weber, Eric R.
TITLE OF INVENTION: CANINE AND FELINE IMMUNOREGULATORY PROTEINS, NUCLEIC
FILE REFERENCE: IM-2-C1-C1
CURRENT APPLICATION NUMBER: US/10/787,382
CURRENT FILING DATE: 2004-02-24
PRIOR APPLICATION NUMBER: US/09/755,633
PRIOR FILING DATE: 2001-01-05
PRIOR APPLICATION NUMBER: 09/322,409
PRIOR FILING DATE: 1999-05-28
PRIOR APPLICATION NUMBER: 60/087,306
PRIOR FILING DATE: 1998-05-29
NUMBER OF SEQ ID NOS: 21
SOFTWARE: PatentIn Ver. 2.1
SEQ ID NO 4
LENGTH: 610
TYPE: DNA
ORGANISM: Canis familiaris
FEATURE:
NAME/KEY: CDS
LOCATION: (29)..(430)
US-10-787-382-4

Query Match 100.0%; Score 402; DB 19; Length 610;
Best Local Similarity 100.0%; Pred. No. 8e-115;
Matches 402; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 ATGAGAAATGCTTGAATTTGAGTTTGTAGCTCTTGGGGCTGCTATGTTTTCCTTT 60
Db 29 ATGAGAAATGCTTGAATTTGAGTTTGTAGCTCTTGGGGCTGCTATGTTTTCCTTT 88
Qy 61 GCTGTAGAAAATCCCATGAATAGACTGTGTGCAGAGACCTTGAACATGCTTCCATCAT 120
Db 89 GCTGTAGAAAATCCCATGAATAGACTGTGTGCAGAGACCTTGAACATGCTTCCATCAT 148
Qy 121 CGAAGTGTGATAGGCGATGGGAACTGATGATTCCTACTCTGAAAAATTAATCAAC 180
Db 149 CGAAGTGTGATAGGCGATGGGAACTGATGATTCCTACTCTGAAAAATTAATCAAC 208
Qy 181 CAACGTGCATTAAAGAGTTTTCAGGGTATAGACATTTGAAGAACCAACTGCCAC 240
Db 209 CAACGTGCATTAAAGAGTTTTCAGGGTATAGACATTTGAAGAACCAACTGCCAC 268
Qy 241 GGGAGGCTGTGATTAACATAATTCACAACTGTCTTTAATTAAGAACATAGAGCG 300
Db 269 GGGAGGCTGTGATTAACATAATTCACAACTGTCTTTAATTAAGAACATAGAGCG 328
Qy 301 CAAAAAAGGTGTGACAGAGAAAGATGAGAGTGAACAAAGTTCTAGACTACCTCAA 360
Db 329 CAAAAAAGGTGTGACAGAGAAAGATGAGAGTGAACAAAGTTCTAGACTACCTCAA 388
Qy 361 GTATTTCTGTGATTAATTAACACCGAGTGCACCGGAAAGT 402
Db 389 GTATTTCTGTGATTAATTAACACCGAGTGCACCGGAAAGT 430

Search completed: August 7, 2005, 19:24:56
Job time : 333.467 secs

GenCore version 5.1.6
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OM nucleic - nucleic search, using SW model

Run on: August 7, 2005, 18:43:18 ; Search time 1710.67 seconds
(without alignments)
8944.955 Million cell updates/sec

Title: US-10-787-382-7

Perfect score: 402

Sequence: 1 atgagaatgtcttgaattc.....ccgagtcgacccggaagt 402

Scoring table: IDENTITY NUC

Gapop 10.0, Gapext 1.0

Searched: 34239544 seqs, 19032134700 residues

Total number of hits satisfying chosen parameters: 68479088

Minimum DB seq length: 0

Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries

Database:

EST:
1: gb_est1:
2: gb_est2:
3: gb_est3:
4: gb_est4:
5: gb_est5:
6: gb_est6:
7: gb_est7:
8: gb_est8:
9: gb_est9:

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	Query Match	Length	ID	Description
1	277.2	69.0	405	AY412020	AY412020 Homo sapi
2	277.2	69.0	456	CD559532	CD559532 AGENCOURT
3	277.2	69.0	456	CD559586	CD559586 AGENCOURT
4	277.2	69.0	470	CD559587	CD559587 AGENCOURT
5	277.2	69.0	492	CD559533	CD559533 AGENCOURT
6	273.2	68.0	405	AY412021	AY412021 Pan trogl
7	266.8	66.4	456	BC066281	BC066281 Mus sapi
8	266.8	66.4	456	CD559588	CD559588 AGENCOURT
9	266.8	66.4	478	CD559534	CD559534 AGENCOURT
10	266.2	66.2	458	BC066279	BC066279 Homo sapi
11	266.2	66.2	458	BC066280	BC066280 Homo sapi
12	266.2	66.2	463	CD559535	CD559535 AGENCOURT
13	266.2	66.2	473	CD559589	CD559589 AGENCOURT
14	266.2	66.2	489	CD559536	CD559536 AGENCOURT
15	266.2	66.2	817	BC069137	BC069137 Homo sapi
16	264.6	65.8	467	CD559590	CD559590 AGENCOURT
17	261.6	65.1	477	CD559568	CD559568 AGENCOURT
18	192.6	47.9	399	AY412022	AY412022 Mus muscu
19	131.8	32.8	622	CE331159	CE331159 tigr-gs8-
20	92.6	23.0	495	CR554944	CR554944 DKFZp459N
21	78	19.4	503	BO598873	BO598873 MI-P-Ea-a
22	74.2	18.5	781	CR235404	CR235404 Reverse s
23	58.2	14.5	737	CR026247	CR026247 Reverse s
24	40.6	10.1	522	BI670794	BI670794 PfEST0A0

25	40	10.0	317	6	CD087271	CD087271 MCL-0036T
26	39.8	9.9	535	8	AZ370501	AZ370501 IM0121K03
27	39.6	9.9	863	9	AG405650	AG405650 Mus muscu
28	39.2	9.8	603	4	B328562	B328562 B328562
29	39.2	9.8	619	4	B328648	B328648 B328648
30	39.2	9.8	905	9	CNS00D59	AL060243 Drosophi1
31	38.6	9.6	1359	4	BG543026	BG543026 602570858
32	38.2	9.5	667	9	CE510121	CE510121 tigr-gs8-
33	38.2	9.5	797	9	CC567321	CC567321 CH240_441
34	38	9.5	432	1	AA560540	AA560540 V119F05_r
35	38	9.5	494	6	CB094467	CB094467 h270D02_b
36	38	9.5	623	8	AQ576964	AQ576964 nbx000901
37	38	9.5	666	8	AQ326668	AQ326668 nbx00038G
38	38	9.5	1011	9	CNS00D59	AL076645 Drosophi1
39	37.8	9.4	584	5	BO526053	BO526053 NISC no14
40	37.8	9.4	671	5	BX707130	BX707130 BX707130
41	37.8	9.4	684	5	BX758408	BX758408 BX758408
42	37.8	9.4	715	5	BX773473	BX773473 BX773473
43	37.8	9.4	724	5	BX773491	BX773491 BX773491
44	37.8	9.4	783	7	CF343019	CF343019 AGENCOURT
45	37.8	9.4	892	5	BX776535	BX776535 BX776535

ALIGNMENTS

RESULT 1	AY412020	405 bp	DNA	linear	GSS 16-DEC-2003
LOCUS	AY412020	Homo sapiens IL5 gene, VIRUTAL TRANSCRIPT, partial sequence.			
DEFINITION	AY412020	Genomic survey sequence.			
ACCESSION	AY412020.1	GI:39767985			
VERSION					
KEYWORDS		GSS.			
SOURCE		Homo sapiens (human)			
ORGANISM		Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Primates; Catarrhini; Homnidae; Homo.			
REFERENCE		1 (bases 1 to 405)			
AUTHORS		Clark, A.G., Glanowski, S., Nielson, R., Thomas, P., Kejarival, A., Todd, M.A., Tanenbaum, D.M., Civello, D.R., Lu, F., Murphy, B., Ferriera, S., Wang, G., Zheng, X.H., White, T.J., Sninsky, J.J., Adams, M.D. and Cargill, M.			
TITLE		Inferring nonneutral evolution from human-chimp mouse orthologous gene trios			
JOURNAL		Science 302 (5652), 1960-1963 (2003)			
PUBMED		14671302			
REFERENCE		2 (bases 1 to 405)			
AUTHORS		Clark, A.G., Glanowski, S., Nielson, R., Thomas, P., Kejarival, A., Todd, M.A., Tanenbaum, D.M., Civello, D.R., Lu, F., Murphy, B., Ferriera, S., Wang, G., Zheng, X.H., White, T.J., Sninsky, J.J., Adams, M.D. and Cargill, M.			
TITLE		Submitted (16-NOV-2003) Celera Genomics, 45 West Gude Drive, Rockville, MD 20850, USA			
JOURNAL		This sequence was made by sequencing genomic exons and ordering them based on alignment.			
COMMENT		Location/Qualifiers			
FEATURES		1..405			
source		/organism="Homo sapiens"			
gene		/mol_type="genomic DNA"			
		/db_xref="taxon:9606"			
		<1..>405			
		/gene="IL5"			
		/locus_tag="HCM4418"			
ORIGIN					
Query Match		69.0%; Score 277.2; DB: 9; Length 405;			
Best Local Similarity		80.6%; Pred. No. 3.5e-67;			
Matches 324; Conservative		0; Mismatches 78; Indels 0; Gaps 0;			
1	ATGAGATGCTTCGAAATTTAGTTGCTAGCTTCGAGGCTGCCTATGTTTCGCCCTT	60			

Db 1 ATGAGATGCTTGCATTTGAGTTTGCTAGCTTGGAGCTGCTTACGTATGCCATC 60
 QY 61 GCTGTGAAAAATCCCATGAATAGACTGTGGCAGAGACTTGACACTGCTCCACTCAT 120
 Db 61 CCACAGAAAAATCCCAAGTGCATGTGTGAAGAAGACCTTGGCACTGCTTTCTACTCAT 120
 QY 121 CGAAGTGTGTAAGGCGATGGGAACCTGATGTTCTTCTACTCTGAAAAATTAATCAC 180
 Db 121 CGAAGTGTGTAAGGCGATGGGAACCTGATGTTCTTCTACTCTGAAAAATTAATCAC 180
 QY 181 CAACGTGCAATTAAGAAAGTTTTCAGGGTATAGACATTTGAAGAACCAACTGCCAC 240
 Db 181 CAACGTGCACTGAAGAAATCTTTCAGGGAATAGGCACTGAGAGATCAAACTGTCAA 240
 QY 241 GGGGAGGCTGTGATAAATCTATTCAAACTGTCTTTAATAAAGAACATAGAGCGC 300
 Db 241 GGGGAGTCTGTGAAAAGCTATTCAAAACTGTCTTTAATAAAGAAATCATTTGACGGC 300
 QY 301 CAAAAAAGAGTGTGACAGAGAAAGATGAGAGATGCAAAAGTCTTACACTTGTCAA 360
 Db 301 CAAAAAAGAGTGTGAGAGAAAGATGAGAGATGCAAAAGTCTTACACTTGTCAA 360
 QY 361 GTATTCTTGATATTAACACCGAGTGGACACCGGAAGT 402
 Db 361 GAGTTCTTGATATTAACACCGAGTGGATATTAAGAAAGT 402

RESULT 2 CD559532 456 bp mRNA linear EST 11-JUN-2003
 LOCUS AGENCOURT_14497057 NIH_MGC_195 Homo sapiens cDNA clone
 DEFINITION IMAGE:6971772 5', mRNA sequence.

ACCESSION CD559532
 VERSION CD559532.1 GI:31585600
 KEYWORDS EST.
 SOURCE Homo sapiens (human)
 ORGANISM Homo sapiens

REFERENCE Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Primates; Catarrhini; Homnidae; Homo.
 1 (bases 1 to 456)
 NIH-MGC http://mgs.nci.nih.gov/.
 National Institutes of Health, Mammalian Gene Collection (MGC)
 COMMENT Unpublished (1999)
 Contact: Daniela S. Gerhard, Ph.D.
 Office of Cancer Genomics
 National Cancer Institute / NIH
 Bldg. 31 Rm10A07 Bethesda, MD 20892
 Email: cgabs-r@mail.nih.gov
 Tissue Procurement: Narayan Bhat
 CDNA Library Preparation: Bhat Laboratory
 CDNA Library Arrayed by: The I.M.A.G.E. Consortium (LNL)
 DNA Sequencing by: Agencourt Bioscience Corporation
 Clone distribution: MGC clone distribution information can be
 found through the I.M.A.G.E. Consortium/LNL at:
 http://image.llnl.gov

FEATURES
 source Plate: IRBK1 row: 9 column: 11
 High quality sequence stop: 456.
 Location/Qualifiers

1. 456
 /organism="Homo sapiens"
 /mol_type="mRNA"
 /db_xref="taxon:9606"
 /clone="IMAGE:6971772"
 /issue_type="mixed"
 /lab_host="DH5A (TI phage-resistant)"
 /clone_1lb="NIH MGC 195"
 /note="Vector: pDNR-Dual; Site 1: loxP-Salt; Site 2: loxP-HindIII; Clones from this library have been PCR-amplified using gene-specific primers to contain the complete open reading frame (based on known gene sequences available from NCBI's RefSeq). Template for PCR is cDNA derived from either pooled cytoplasmic polyA RNA from 30 cells lines or pooled total RNA from 10 different tissues

(from BD Biosciences/Clontech and Washington University).
 PCR products are directionally cloned into the loxP sites of the pDNR-Dual vector. Library constructed by Dr. Narayan Bhat, Earl Bere III and Hongling Liao (Gene Expression Laboratory, Research Technology Program, SAIC Frederick, NCI-Frederick, Frederick, MD 21702). For information on which gene each clone represents, please visit our anonymous ftp site at
 ftp://image.llnl.gov/image/rearrayed_plates/IRBK_presv.dat
 a Note: this is a NIH_MGC Library."

ORIGIN
 Query Match 69.0%; Score 277.2; DB 6; Length 456;
 Best Local Similarity 80.6%; Pred. No. 3.6e-67;
 Matches 324; Conservativity 0; Mismatches 78; Indels 0; Gaps 0;

QY 1 ATGAGATGCTTGAATTTGAGTTTGCTAGCTTGGAGCTGCTTACGTATGCCATC 60
 Db 22 ATGAGATGCTTGTGCAATTTGAGTTTGCTAGCTTGGAGCTGCTTACGTATGCCATC 81
 QY 61 GCTGTGAAAAATCCCATGAATAGACTGTGGCAGAGACTTGACACTGCTCCACTCAT 120
 Db 82 CCACAGAAAAATCCCAAGTGCATGTGTGAAGAAGACCTTGGCACTGCTTTCTACTCAT 141
 QY 121 CGAAGTGTGTAAGGCGATGGGAACCTGATGTTCTTCTACTCTGAAAAATTAATCAC 180
 Db 142 CGAAGTGTGTAAGGCGATGGGAACCTGATGTTCTTCTACTCTGAAAAATTAATCAC 201
 QY 181 CAACGTGCAATTAAGAAAGTTTTCAGGGTATAGACATTTGAAGAACCAACTGCCAC 240
 Db 202 CAACGTGCACTGAAGAAATCTTTCAGGGAATAGGCACTGAGAGATCAAACTGTCAA 261
 QY 241 GGGGAGGCTGTGATAAATCTATTCAAACTGTCTTTAATAAAGAACATAGAGCGC 300
 Db 262 GGGGAGTCTGTGAAAAGCTATTCAAACTGTCTTTAATAAAGAAATCATTTGACGGC 321
 QY 301 CAAAAAAGAGTGTGACAGAGAAAGATGAGAGATGCAAAAGTCTTACACTTGTCAA 360
 Db 322 CAAAAAAGAGTGTGAGAGAAAGATGAGAGATGCAAAAGTCTTACACTTGTCAA 381
 QY 361 GTATTCTTGATATTAACACCGAGTGGACACCGGAAGT 402
 Db 382 GAGTTCTTGATATTAACACCGAGTGGATATTAAGAAAGT 423

RESULT 3 CD559686 456 bp mRNA linear EST 11-JUN-2003
 LOCUS AGENCOURT_14497093 NIH_MGC_195 Homo sapiens cDNA clone
 DEFINITION IMAGE:6971772 3', mRNA sequence.

ACCESSION CD559686
 VERSION CD559686.1 GI:31585754
 KEYWORDS EST.
 SOURCE Homo sapiens (human)
 ORGANISM Homo sapiens

REFERENCE Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Primates; Catarrhini; Homnidae; Homo.
 1 (bases 1 to 456)
 NIH-MGC http://mgs.nci.nih.gov/.
 National Institutes of Health, Mammalian Gene Collection (MGC)
 COMMENT Unpublished (1999)
 Contact: Daniela S. Gerhard, Ph.D.
 Office of Cancer Genomics
 National Cancer Institute / NIH
 Bldg. 31 Rm10A07 Bethesda, MD 20892
 Email: cgabs-r@mail.nih.gov
 Tissue Procurement: Narayan Bhat
 CDNA Library Preparation: Bhat Laboratory
 CDNA Library Arrayed by: The I.M.A.G.E. Consortium (LNL)
 DNA Sequencing by: Agencourt Bioscience Corporation
 Clone distribution: MGC clone distribution information can be
 found through the I.M.A.G.E. Consortium/LNL at:
 http://image.llnl.gov

Plate: IRBK1 row: 9 column: 11
High quality sequence stop: 456.
Location/Qualifiers

1. .456
/organism="Homo sapiens"
/mol_type="mRNA"
/db_xref="taxon:9606"
/clone="IMAGE:6971772"
/issue_type="mixed"
/lab_host="DH5A (T1 phage-resistant)"
/clone_lib="NIH_MGC_195"
/note="Vector: pDNR-Dual; Site 1: loxp-Sall; Site 2: loxp-HindIII; Clones from this library have been PCR-amplified using gene-specific primers to contain the complete open reading frame (based on known gene sequences available from NCBI's RefSeq). Template for PCR is cDNA derived from either pooled cytoplasmic polyA RNA from 30 cells lines or pooled total RNA from 10 different tissues (from BD Biosciences/Clontech and Washington University). PCR products are directionally cloned into the loxp sites of the pDNR-Dual vector. Library constructed by Dr. Narayan Bhat, Earl Bere III and Hongling Liao (Gene Expression Laboratory, Research Technology Program, SAIC Frederick, NCI-Frederick, Frederick, MD 21702). For information on which gene each clone represents, please visit our anonymous ftp site at
ftp://image.llnl.gov/image/rearranged_plates/IRBK.presv.dat
a Note: this is a NIH_MGC Library."

ORIGIN

Query Match 69.0%; Score 277.2; DB 6; Length 456;
Best Local Similarity 80.6%; Pred. No. 3.6e-67;
Matches 324; Conservative 0; Mismatches 78; Indels 0; Gaps 0;

QY 1 ATGAGAAATGCTTGAATTTGAGTTGCTAGCTCTTGAGGCTGCTATGTTTGCCTT 60
DB 433 ATGAGAAATGCTTGAATTTGAGTTGCTAGCTCTTGAGGCTGCTATGTTTGCCTT 374
QY 61 GCTGTAGAAATCCCATGATGAGCTGTGCGAGAGCTTGACATGCTTCCATCAT 120
DB 373 CCCACAGAAATCCCATGATGAGCTGTGCGAGAGCTTGACATGCTTCCATCAT 314
QY 121 CGAATGCTGTATGAGGAGTGGAGACCTGATGATTCCTACTCTGAAATTAATAATCAC 180
DB 313 CGAATGCTGTATGAGGAGTGGAGACCTGATGATTCCTACTCTGAAATTAATAATCAC 254
QY 181 CAACTGTGCTATTAAGAAGTTTTCAGGATATGACACATTTGAAGAACCAATGCCAC 240
DB 253 CAACTGTGCTATTAAGAAGTTTTCAGGATATGACACATTTGAAGAACCAATGCCAC 194
QY 241 GGGGAGCTGTGATTAACCTATTCCTGATGATTTGCTTTAATAAAGAACATAGAGCGC 300
DB 193 GGGGAGCTGTGATTAACCTATTCCTGATGATTTGCTTTAATAAAGAACATAGAGCGC 134
QY 301 CAAATAAAGAGTGTGAGAGAAATGAGAGTGAACAAATGCTTCTAGACTTACCTGCA 360
DB 133 CAAATAAAGAGTGTGAGAGAAATGAGAGTGAACAAATGCTTCTAGACTTACCTGCA 74
QY 361 GTATTTCTTGCTGATTAACACCGAGTGAACACCGAAGT 402
DB 73 GAGTTTCTTGCTGATTAACACCGAGTGAACACCGAAGT 32

RESULT 4
CD559687/c 470 bp mRNA linear EST 19-NOV-2003
LOCUS
DEFINITION AGENCOURT 14497029 NIH MGC 195 Homo sapiens cDNA clone
IMAGE:6971771 5', mRNA sequence.
ACCESSION
VERSION CD559687
KEYWORDS EST.
SOURCE
ORGANISM Homo sapiens (human)

REFERENCE
AUTHORS
TITLE
JOURNAL
COMMENT

Eukaryote; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Primates; Catarrhini; Homnidae; Homo.
1 (bases 1 to 470)
NIH-MGC http://imgc.nci.nih.gov/
National Institutes of Health, Mammalian Gene Collection (MGC)
Unpublished (1999)
On Jun 10, 2003 this sequence version replaced gi:31585755.
Contact: Daniela S. Gerhard, Ph.D.
Office of Cancer Genomics
National Cancer Institute / NIH
Bldg. 31 Rm10A07 Bethesda, MD 20892
Email: cgaps-remail.nih.gov
Tissue Procurement: Narayan Bhat
cDNA Library Preparation: Bhat Laboratory
cDNA Library Arrayed by: The I.M.A.G.E. Consortium (LNL)
DNA Sequencing by: Agencourt Bioscience Corporation
Clone distribution: MGC clone distribution information can be found through the I.M.A.G.E. Consortium/LNL at:
http://image.llnl.gov
Plate: IRBK1 row: 9 column: 10
High quality sequence start: 14
High quality sequence stop: 470.
Location/Qualifiers

FEATURES

SOURCE

1. .470
/organism="Homo sapiens"
/mol_type="mRNA"
/db_xref="taxon:9606"
/clone="IMAGE:6971771"
/issue_type="mixed"
/lab_host="DH5A (T1 phage-resistant)"
/clone_lib="NIH_MGC_195"
/note="Vector: pDNR-Dual; Site 1: loxp-Sall; Site 2: loxp-HindIII; Clones from this library have been PCR-amplified using gene-specific primers to contain the complete open reading frame (based on known gene sequences available from NCBI's RefSeq). Template for PCR is cDNA derived from either pooled cytoplasmic polyA RNA from 30 cells lines or pooled total RNA from 10 different tissues (from BD Biosciences/Clontech and Washington University). PCR products are directionally cloned into the loxp sites of the pDNR-Dual vector. Library constructed by Dr. Narayan Bhat, Earl Bere III and Hongling Liao (Gene Expression Laboratory, Research Technology Program, SAIC Frederick, NCI-Frederick, Frederick, MD 21702). For information on which gene each clone represents, please visit our anonymous ftp site at
ftp://image.llnl.gov/image/rearranged_plates/IRBK.presv.dat
a Note: this is a NIH_MGC Library."

ORIGIN

Query Match 69.0%; Score 277.2; DB 6; Length 470;
Best Local Similarity 80.6%; Pred. No. 3.6e-67;
Matches 324; Conservative 0; Mismatches 78; Indels 0; Gaps 0;

QY 1 ATGAGAAATGCTTGAATTTGAGTTGCTAGCTCTTGAGGCTGCTATGTTTGCCTT 60
DB 446 ATGAGAAATGCTTGAATTTGAGTTGCTAGCTCTTGAGGCTGCTATGTTTGCCTT 387
QY 446 ATGAGAAATGCTTGAATTTGAGTTGCTAGCTCTTGAGGCTGCTATGTTTGCCTT 387
DB 386 CCCACAGAAATCCCATGATGAGCTGTGCGAGAGCTTGACATGCTTCCATCAT 327
QY 61 GCTGTAGAAATCCCATGATGAGCTGTGCGAGAGCTTGACATGCTTCCATCAT 120
DB 386 CCCACAGAAATCCCATGATGAGCTGTGCGAGAGCTTGACATGCTTCCATCAT 327
QY 121 CGAATGCTGTATGAGGAGTGGAGACCTGATGATTCCTACTCTGAAATTAATAATCAC 180
DB 326 CGAATGCTGTATGAGGAGTGGAGACCTGATGATTCCTACTCTGAAATTAATAATCAC 267
QY 181 CAACTGTGCTATTAAGAAGTTTTCAGGATATGACACATTTGAAGAACCAATGCCAC 240
DB 266 CAACTGTGCTATTAAGAAGTTTTCAGGATATGACACATTTGAAGAACCAATGCCAC 207
QY 241 GGGGAGCTGTGATTAACCTATTCCTGATGATTTGCTTTAATAAAGAACCATAGAGCGC 300
DB 206 GGGGAGCTGTGATTAACCTATTCCTGATGATTTGCTTTAATAAAGAACCATAGAGCGC 147

QY 301 CAAAAAAGGTGTGAGAGAAAGATGAGTGA CAAAGTCTTAGACTACTGCA 360
 |||||
 Db 146 CAAAAAAGGTGTGAGAGAAAGATGAGTGA CAAAGTCTTAGACTACTGCA 87
 |||||
 QY 361 GTATTTCTTGTTATTAACACCGAGTGACACCGGAAAGT 402
 |||||
 Db 86 GAGTTCTTGTTATTAACACCGAGTGATTAAGAAAGT 45
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RESULT 5
 CD559533 492 bp mRNA linear EST 26-NOV-2003
 LOCUS AGENCOURT_14496993 NIH_MGC_195 Homo sapiens cDNA clone
 IMAGE:6971771 5', mRNA sequence.
 CD559533
 ACCESSION CD559533
 VERSION CD559533.2 GI:38558947
 KEYWORDS EST.
 SOURCE Homo sapiens (human)
 ORGANISM Homo sapiens
 Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
 Mammalia; Eutheria; Primates; Catarrhini; Homnidae; Homo.
 1 (bases 1 to 492)
 NIH-MGC http://mgc.nci.nih.gov/
 National Institutes of Health, Mammalian Gene Collection (MGC)
 Unpublished (1999)
 On Jun 10, 2003 this sequence version replaced gi:31585601.
 Contact: Daniela S. Gerhard, Ph.D.
 Office of Cancer Genomics
 National Cancer Institute / NIH
 Bldg. 31 Rm10A07 Bethesda, MD 20892
 Email: CGABS-remail.nih.gov
 Tissue Procurement: Narayan Bhat
 cDNA Library Preparation: Bhat Laboratory
 cDNA Library Arrayed by: The I.M.A.G.E. Consortium (LNL)
 DNA Sequencing by: Agencourt Bioscience Corporation
 Clone distribution: MGC clone distribution information can be
 found through the I.M.A.G.E. Consortium/LNL at:
 http://image.llnl.gov
 Plate: IRBK1 row: 9 column: 10
 High quality sequence start: 14
 High quality sequence end: 492.
 Location/Qualifiers

FEATURES

source

1. 492
 /organism="Homo sapiens"
 /mol_type="mRNA"
 /db_xref="taxon:9606"
 /clone="IMAGE:6971771"
 /tissue_type="mixed"
 /lab_host="NIH MGC 195"
 /note="Vector: PDNR-Dual; Site 1: loxp-Salt; Site 2:
 loxp-HindIII; clones from this library have been 2:
 PCR-amplified using gene-specific primers to contain the
 complete open reading frame (based on known gene sequences
 available from NCBI's RefSeq). Template for PCR is cDNA
 derived from either pooled cytoplasmic polyA RNA from 30
 cells lines or pooled total RNA from 10 different tissues
 (from BD Biosciences/Clontech and Washington University).
 PCR products are directionally cloned into the loxp sites
 of the PDNR-Dual vector. Library constructed by Dr.
 Narayan Bhat, Earl Bere III and Hongling Liao (Gene
 Expression Laboratory, Research Technology Program, SAIC
 Frederick, NCI-Frederick, Frederick, MD 21702). For
 information on which gene each clone represents, please
 visit our anonymous ftp site at
 ftp://image.llnl.gov/image/rearranged_plates/IRBK_presv.dat
 a Note: this is a NIH_MGC Library."

ORIGIN

Query Match 69.0%; Score 277.2; DB 6; Length 492;
 Best Local Similarity 80.6%; Pred. No. 3.6e-67;
 Matches 324; Conservative 0; Mismatches 78; Indels 0; Gaps 0;

QY 1 ATGAGATGCTTCTGTAATTTGAGTTTCTAGCTCTTGCGGCTGCTATGTTTCTGCTTT 60
 |||||
 Db 56 ATGAGATGCTTCTGTAATTTGAGTTTCTAGCTCTTGCGGCTGCTATGTTTCTGCTTT 115
 |||||
 QY 61 GCTGTGAAAATCCCAATGAAATAGACTGTGGCAGAGACCTTGACACTGCTTCCACTCAT 120
 |||||
 Db 116 CCCACAGAAATTCACCAAGTGCATTTGTGAAGAACCTTGGCACTGCTTCTTACTCAT 175
 |||||
 QY 121 CGAAGTGTGCTGATAGCGGAGTGGAACTGATGATCTTCTACTGCTGAAAAATTAATAC 180
 |||||
 Db 176 CGAAGTGTGCTGATAGCGGAGTGGAACTGATGATCTTCTACTGCTGAAAAATTAATAC 225
 |||||
 QY 181 CAACTGTGATTAAGAAAGTTTTCAGGCTATAGACACTTGAAGAACCAAGTGGCCAC 240
 |||||
 Db 236 CAACTGTGACAGTGAAGAAATCTTTCAGGGAATAGGACACTGGAAGTCAACTGTGCAA 295
 |||||
 QY 241 GGGGAGGCTGTGATTAACATTTCCAAAACCTTCTTTAATAAAGACATAGAGCGC 300
 |||||
 Db 296 GGGGCTACTGTGAAAGACTATTCAAAACCTTCTTTAATAAAGACATAGAGCGC 355
 |||||
 QY 301 CAAAAAAGGTGTGAGAGAAAGATGAGTGA CAAAGTCTTAGACTACTGCA 360
 |||||
 Db 356 CAAAAAAGGTGTGAGAGAAAGATGAGTGA CAAAGTCTTAGACTACTGCA 415
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 QY 361 GTATTTCTTGTTATTAACACCGAGTGACACCGGAAAGT 402
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 Db 416 GAGTTCTTGTTATTAACACCGAGTGATTAAGAAAGT 457
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RESULT 6
 AY412021 405 bp DNA linear GSS 16-DEC-2003
 LOCUS Pan troglodytes IL5 gene, VIRTUAL TRANSCRIPT, partial sequence,
 genomic survey sequence.
 DEFINITION AY412021.1 GI:39767986
 VERSION AY412021.1 GI:39767986
 KEYWORDS GSS.
 SOURCE Pan troglodytes (chimpanzee)
 ORGANISM Pan troglodytes
 Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
 Mammalia; Eutheria; Primates; Catarrhini; Homnidae; Pan.
 1 (bases 1 to 405)
 Clark,A.G., Glanowski,S., Nielson,R., Thomas,P., Kejarival,A.,
 Todd,M.A., Tanenbaum,D.M., Civello,D.R., Lu,F., Murphy,B.,
 Ferreira,S., Wang,G., Zheng,X.H., White,T.J., Sliney,J.J.,
 Adams,M.D. and Cargill,M.
 Inferring nonneutral evolution from human-chimp-mouse orthologous
 gene trios
 Science 302 (5652), 1960-1963 (2003)

REFERENCE

AUTHORS

TITLE

JOURNAL PUBMED
 14671302
 2 (bases 1 to 405)

REFERENCE

AUTHORS

TITLE

JOURNAL
 Submitted (16-NOV-2003) Celera Genomics, 45 West Gude Drive,
 Rockville, MD 20850, USA
 This sequence was made by sequencing genomic exons and ordering
 them based on alignment.

COMMENT

source

1. 405
 /organism="Pan troglodytes"
 /mol_type="genomic DNA"
 /db_xref="taxon:9598"
 <1..>405
 /gene="IL5"
 /locus_tag="HC4418"

ORIGIN

Query Match 68.0%; Score 273.2; DB 9; Length 405;
 Best Local Similarity 79.6%; Pred. No. 4.7e-66;

Matches	320;	Conservative	0;	Mismatches	82;	Indels	0;	Gaps	0;
Qy	1	ATGAGAAATGCTTGAATTTGAGTTTGTAGCTCTTGGGGGCGCTATGTTTGCCTTT	60						
Db	1	ATGAGAGATGCTTGTGCAATTTGATTTGCTTGTAGCTCTTGGAGCTGCTTACGTATGCAATC	60						
Qy	61	GCTGTAGAAAATCCCATGATAGACTGTGTGCAGAGACCTTGACACTGCTCTCCACTCAT	120						
Db	61	CCCAAGAAAATCCCAAGATGCAATGTGTGAAAGAGACTTGGCACTGCTCTTTTCACTCAT	120						
Qy	121	CGAATCTGTGATAGGCGATGAGCACTGATGATCTTCTACTCTGAAAATATAAATATAC	180						
Db	121	CGAATCTGTGATAGGCAATGAGCACTGATGATCTTCTGTTCTGTAATATAAATATAC	180						
Qy	181	CAACTGTGATTAAGAAGTTTTCAGGGTATAGACATTTGAAGAACCAATGCGCCAC	240						
Db	181	CAACNNACACTGAAGAATCTTTCAGGAAATAGGCACTGAGAGTCAAACTGTGCA	240						
Qy	241	GGGAGGCTGTGATTAACCTATTCCTCAAACTGTCTTTAATAAAGAACATGAGCGC	300						
Db	241	GGGGGATCTGTGAAGAAGCTATTCCTCAAACTGTCTTTAATAAAGAACATGAGCGC	300						
Qy	301	CAAAAAAAGAGTGTGCGAGGAAAGATGAGAGTGAACAAGTTCTTACTTCTGCA	360						
Db	301	CAAAAAAAGAGTGTGAGGAAAGAGAGGAGATTAACCAATTCCTTACTTACTGCA	360						
Qy	361	GTATTTCTTGTGTATTAACACGAGTGAACACCGGAAGT	402						
Db	361	GAGTTTCTTGTGTATTAACACGAGTGAATATAGAAAT	402						
RESULT 7	BC066281	456 bp	mRNA	linear	HTC 12-FEB-2004				
LOCUS	BC066281								
DEFINITION	Homo sapiens cDNA clone IMAGE:6971770, containing frame-shift								
ACCESSION	BC066281								
VERSION	BC066281.1								
KEYWORDS	HTC								
SOURCE	Homo sapiens (human)								
ORGANISM	Homo sapiens								
REFERENCE	1 (bases 1 to 456)								
AUTHORS	Klausner, R.D., Collins, P.S., Wagner, L., Shemen, C.M., Schuler, G.D., Altschul, S.F., Zeeberg, B., Buelow, K.H., Schaefer, C.F., Bhat, N.K., Hopkins, R.F., Jordan, H., Moore, T., Max, S.I., Wang, J., Hsieh, F., Ditschenko, L., Marusina, K., Farmer, A.A., Rubin, G.M., Hong, L., Stedman, M., Soares, M.B., Bonaldo, M.F., Casavant, T.L., Schaefer, T.E., Brownstein, M.J., Uedlin, T.B., Tothlyuk, S., Carninci, P., Prange, C., Raha, S.S., Loquellano, N.A., Peters, G.J., Abramson, R.D., Mullany, S.J., Bosak, S.A., McEwan, P.J., Mcherman, K.J., Malek, J.A., Gunaratne, P.H., Richards, S., Wollay, K.C., Hale, S., Garcia, A.M., Gay, L.J., Hui, Y., S.W., Valleron, D.K., Muzny, D.M., Sodergren, E.J., Lu, X., Gibbs, R.A., Sanchez, J., Helton, E., Kettelman, M., Madan, A., Rodriguez, S., Sanchez, A., Whiting, M., Madan, A., Young, A.C., Shevchenko, Y., Bouffard, G.G., Blakesley, R.W., Touchman, J.W., Green, E.D., Dickson, M.C., Rodriguez, A.C., Grimwood, J., Schmutz, J., Myers, R.M., Butlerfield, Y.S., Krzywinski, M.I., Skalska, U., Smalls, D.E., Scherch, A., Schein, J.E., Jones, S.J., and Marra, M.A.								
TITLE	human and mouse cDNA sequences								
JOURNAL	Proc. Natl. Acad. Sci. U.S.A.	99	(26)						
PUBMED	12477932								
REFERENCES	2 (bases 1 to 456)								
AUTHORS	Stratman, R.								
TITLE	Direct Submission								
JOURNAL	Submitted (03-FEB-2004) National Institutes of Health, Mammalian								
	Gene Collection (MGC), Cancer Genomics Office, National Cancer								
	Institute, 31 Center Drive, Room 11A03, Bethesda, MD 20892-2590,								
	USA								

REMARK	NIH-MGC Project URL: http://mgc.nci.nih.gov
COMMENT	Contact: MGC help desk Email: cgabs-remail.nih.gov Tissue Procurement: Narayan Bhat cDNA Library Preparation: Bhat Laboratory cDNA Library Arrayed by: The I.M.A.G.E. Consortium (LNL) DNA Sequencing by: Sequencing Group at the Stanford Human Genome Center, Stanford University School of Medicine, Stanford, CA 94305 Web site: http://www.sbgc.stanford.edu Contact: (Dickson, Mark) mcdpaxil.stanford.edu Dickson, M., Schmutz, J., Grimwood, J., Rodriguez, A., and Myers, R. M.
FEATURES	Clone distribution: MGC clone distribution information can be found through the I.M.A.G.E. Consortium/LNL at: http://image.lnl.gov Series: IRAC Plate: 172 Row: a Column: 17 This clone was selected for full length sequencing because it passed the following selection criteria: matched mRNA gi: 28559032 This clone has the following problem: frame shifted. Location/Qualifiers 1..456 /organism="Homo sapiens" /mol_type="mRNA" /db_xref="taxon:9606" /clone="IMAGE:6971770" /issue_type="PCR rescued clones" /clone_id="NIH MGC_195" /lab_host="DH10B" /note="Vector: pDNR-Dual"
ORIGIN	Query Match 66.4%; Score 266.8; DB 3; Length 456; Best Local Similarity 80.6%; Pred. No. 3.1e-64; Matches 324; Conservative 0; Mismatches 77; Indels 1; Gaps 1;
Qy	1 ATGAGAAATGCTTGAATTTGAGTTTGTAGCTCTTGGGGGCGCTATGTTTGCCTTT
Db	24 ATGAGAGATGCTTGTGCAATTTGATTTGCTTGTAGCTCTTGGAGCTGCTTACGTATGCAATC
Qy	61 GCTGTAGAAAATCCCATGATAGACTGTGTGCAGAGACCTTGACACTGCTCTCCACTCAT
Db	84 CCCACAGAAAATCCCAAGATGCAATGTGTGAAAGAGACTTGGCACTGCTCTTCACTCAT
Qy	121 CGAATCTGTGATAGGCGATGAGCACTGATGATCTTCTACTCTGAAAATATAAATATAC
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Db	204 CAACTGTGATTAAGAAGTTTTCAGGGTATAGACATTTGAAGAACCAATGCGCCAC
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LOCUS	CD559688/c
DEFINITION	AGENCOURT 14496964 NIH MGC 195 Homo sapiens cDNA clone
ACCESSION	CD559688
VERSION	CD559688.2
KEYWORDS	EST. Homo sapiens (human)

Matches	324;	Conservative	0;	Mismatches	77;	Indels	1;	Gaps	1;
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Db	45	ATGAGAGATGCTTCTGCAATTTAGTTTCTAGCTCTTGGAGCTGCTTACGTATGCAATC	104						
Qy	61	GCTGTAGAAAATCCCATGATAGACTGTGTGCGAGAGACTTGTACACTGCTCCACTCAT	120						
Db	105	CCCAAGAAATTTCCCAAGATGATGTGTGAAGAGACTTGGGACCTGCTTTTCACTCAT	164						
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Db	165	CGAAGTGTGCTGATAGCCATGAGACTCTGAGATTCCTGTTCTGTCATATAAATAC	224						
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Qy	241	GGGAGGCTGTGATTAACCTATTCCTGCTTCTTATTAATAAAGAACATAGAGCGC	300						
Db	285	GGGAGGCTGTGATTAACCTATTCCTGCTTCTTATTAATAAAGAACATAGAGCGC	344						
Qy	301	CAAAAAAAGGTGTGCGAGAAAGATGAGAGTGAACAAAGTTCTTACTTACTGCA	360						
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LOCUS	BC066279								
DEFINITION	Homo sapiens cDNA clone IMAGE:6971768, containing frame-shift errors.								
ACCESSION	BC066279								
VERSION	BC066279.1	GI:42490901							
KEYWORDS	HTC.								
SOURCE	Homo sapiens (human)								
ORGANISM	Homo sapiens								
REFERENCE	1 (bases 1 to 458)								
AUTHORS	Krausberg, R.L., Feingold, E.A., Grouse, L.H., Derge, J.G., Klausner, R.D., Collins, P.S., Wagner, L.H., Schenker, G.D., Altschul, S.F., Zeeberg, B., Buetow, K.H., Schaefer, C.F., Bhat, N.K., Hopkins, R.F., Jordan, H., Moore, T., Max, S.I., Wang, J., Hsieh, F., Diatchenko, L., Marusina, K., Farmer, A.A., Rubin, G.M., Hong, L., Stapleton, M., Soares, M.B., Bonaldo, M.F., Casavant, T.L., Scheetz, T.E., Brownstein, M.J., Uedin, T.B., Toshiyuki, S., Carninci, F., Prange, C., Rana, S.S., Loquellano, N.A., Peters, G.J., Abramson, R.D., Muller, S.J., Bosak, S.A., McEwan, P.J., Mckernan, K.J., Malek, J.A., Gunaratne, P.H., Richards, S., Wolley, K.C., Hale, S., Garcia, A.M., Gay, L.J., Hily, S.W., Villalón, D.K., Muzny, D.M., Sodergren, E.J., Lu, X., Gibbs, R.A., Fahey, J., Helton, E., Kettelman, M., Madan, A., Rodriguez, S., Sanchez, A., Whiting, M., Madan, A., Young, A.C., Shevchenko, Y., Bouffard, G.G., Blakesley, R.W., Touchman, J.W., Green, E.D., Dickson, M.C., Rodriguez, A.C., Grimwood, J., Schmutz, J., Myers, R.M., Butterfield, Y.S., Krzyzanski, M.I., Skalek, U., Smalls, D.E., Scherch, A., Schein, J.E., Jones, S.J. and Marra, M.A.								
TITLE	Generation and initial analysis of more than 15,000 full-length human and mouse cDNA sequences								
JOURNAL	Proc. Natl. Acad. Sci. U.S.A.	99	(26)		16899-16903	(2002)			
PUBMED	12477932								
REFERENCE	2 (bases 1 to 458)								
AUTHORS	Krausberg, R.								
TITLE	Direct Submission								
JOURNAL	Submitted (03-FEB-2004) National Institutes of Health, Mammalian Gene Collection (MGC), Cancer Genomics Office, National Cancer Institute, 31 Center Drive, Room 11A03, Bethesda, MD 20892-2590, USA								

REMARK	COMMENT
NIH-MGC Project URL: http://mgc.nci.nih.gov	
Contact: MGC help desk	
Email: cgabs-remail.nih.gov	
Tissue Procurement: Narayan Bhat	
cDNA Library Preparation: Bhat Laboratory	
cDNA Library Arrayed by: The I.M.A.G.E. Consortium (ILNL)	
DNA Sequencing by: Sequencing Group at the Stanford Human Genome Center, Stanford University School of Medicine, Stanford, CA 94305	
Web site: http://www-shgc.stanford.edu	
Contact: (Dickson, Mark) mcdbpaxil.stanford.edu	
Dickson, M., Schmutz, J., Grimwood, J., Rodriguez, A., and Myers, R. M.	
Clone distribution: MGC clone distribution information can be found through the I.M.A.G.E. Consortium/ILNL at: http://image.llnl.gov	
Series: IRAC Plate: 172 Row: a Column: 15	
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Best Local Similarity	80.4%; Pred. No. 4.66-64;
Matches	324; Conservative 0; Mismatches 78; Indels 1; Gaps 1;
Qy	1 ATGAGAAATGCTTGAATTTAGTTGCTAGCTCTGGGGGCGCTATGTTTGGCCCTT
Db	24 ATGAGAGATGCTTCTGCAATTTAGTTTCTAGCTCTTGGAGCTGCTTACGTATGCAATC
Qy	61 GCTGTAGAAAATCCCATGATAGACTGTGTGCGAGAGACTTGTACACTGCTCCACTCAT
Db	84 CCCAGAAATTTCCCAAGATGATGTGTGAAGAGACTTGTGGAAGCTTCTTCACTCAT
Qy	121 CGAAGTGTGCTGATAGGGGATGCGAACTGATGATCTTCTACTCTGAAAATATAATAC
Db	144 CGAAGTGTGCTGATAGGGGATGCGAACTGATGATCTTCTACTCTGAAAATATAATAC
Qy	181 CAACTGTGCTATTAAGAAGTTTTCAGGGTATAGACATTTGAAGAACCAATGCGCAC
Db	204 CAACTGTGCTATTAAGAAGTTTTCAGGGTATAGACATTTGAAGAACCAATGCGCAC
Qy	241 GGGAGGCTGTGATTAACCTATTCCTGCTTCTTATTAATAAAGAACATAGAGCGC
Db	264 GGGAGGCTGTGATTAACCTATTCCTGCTTCTTATTAATAAAGAACATAGAGCGC
Qy	301 C-AAAAAAGGTGTGCGAGAAAGATGAGAGTGAAGTTCCTAGACTTACTGCA
Db	324 C-AAAAAAGGTGTGCGAGAAAGATGAGAGTGAAGTTCCTAGACTTACTGCA
Qy	360 AGATTTCTTGTGATTAACACCGAGTGAACCGAAGT
Db	384 AGATTTCTTGTGATTAACACCGAGTGAACCGAAGT
RESULT 11	BC066280
LOCUS	BC066280
DEFINITION	Homo sapiens cDNA clone IMAGE:6971769, containing frame-shift errors.
ACCESSION	BC066280
VERSION	BC066280.1
KEYWORDS	HTC.
SOURCE	Homo sapiens (human)

ORGANISM Homo sapiens
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Primates; Catarrhini; Homnidae; Homo.

REFERENCE 1 (bases 1 to 458)
Srausberg, R.D., Collins, F.S., Wagner, L., Shenmen, C.M., Schuler, G.D., Altschul, S.F., Zeeberg, B., Buetow, K.H., Schaefer, C.F., Bhat, N.K., Hopkins, R.F., Jordan, H., Moore, T., Max, S.I., Wang, J., Hsieh, F., Diatchenko, L., Marusina, K., Farmer, A.A., Rubin, G.M., Hong, L., Stapleton, M., Soares, M.B., Bonaldo, M.F., Casavant, T.L., Schaefer, J., Brownstein, M.J., Udell, T.B., Toehiyuki, S., Carninci, P., Prange, C., Raha, S.S., Loggiano, N.A., Peters, G.J., Abramson, R.D., Miliani, S.J., Bock, S.A., McEwen, P.J., McEwen, K.U., Malek, U.A., Gunaratne, P.H., Richards, S., Morley, K.C., Hale, S., Garcia, A.M., Gay, L.J., Hu, X., Gibbs, R.A., Villalón, D.K., Muzny, D.M., Sodergren, E.J., Lu, X., Gibbs, R.A., Sanchez, A., Whitting, M., Madan, A., Young, A.C., Shvedchenko, Y., Bouffard, G.G., Blakesley, R.W., Touchman, J.W., Green, E.D., Dickson, M.C., Rodriguez, A.C., Grimwood, J., Schmutz, J., Myers, R.M., Butterfield, Y.S., Krzywinski, M.I., Skalska, U., Smalins, D.E., Schnerch, A., Schein, J.E., Jones, S.U., and Marra, M.A.

Generation and initial analysis of more than 15,000 full-length human and mouse cDNA sequences

JOURNAL Proc. Natl. Acad. Sci. U.S.A. 99 (26), 16899-16903 (2002)

PUBMED 12477932

REFERENCE 2 (bases 1 to 458)
Srausberg, R.

AUTHORS Direct Submission

JOURNAL Submitted (03-FEB-2004) National Institutes of Health, Mammalian Gene Collection (MGC), Cancer Genomics Office, National Cancer Institute, 31 Center Drive, Room 11A03, Bethesda, MD 20892-2590, USA

REMARK NIH-MGC Project URL: <http://mgc.nci.nih.gov>
Contact: MGC help desk
Email: cgabs-remail.nih.gov
Tissue Procurement: Narayan Bhat
cDNA Library Preparation: Bhat Laboratory
DNA Sequencing by: The I.M.A.G.E. Consortium (LNL)
Center, Stanford University School of Medicine, Stanford, CA 94305
Web site: <http://www.sngc.stanford.edu>
Contact: (Dickson, Mark) mcdpaxil@stanford.edu
Dickson, M., Schmutz, J., Grimwood, J., Rodriguez, A., and Myers, R. M.

FEATURES
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/note="Vector: pDNR-Dual"

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Query Match 66.2%; Score 266.2; DB 3; Length 458;
Best Local Similarity 80.4%; Pred. No. 4.66-64;
Matches 324; Conservative 0; Mismatches 78; Indels 1; Gaps 1;

Qy 1 ATGAGATGCTTCTGATTTGAGTTGCTAGCTCTTGAGGCTGCTTGTTCGCTT 60
Db 24 ATGAGATGCTTCTGATTTGAGTTGCTAGCTCTTGAGGCTGCTTGTTCGCTT 83
Qy 61 GCTGTAGAAATCCCATGATGACTGTGTGAGAGACTTGTGACATGCTCTCAT 120

Db 84 CCACAGAAATTCACCAAGTGATTTGTGAAAGAGCTTGGACCTGCTTACTCAT 143
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DEFINITION AGENCOURT 14496865 NIH MGC 195 Homo sapiens cDNA clone
IMAGE:6971769 5', mRNA-sequence.
ACCESSION CD559535
VERSION CD559535.2 GI:38558950
KEYWORDS EST.

SOURCE
ORGANISM Homo sapiens (human)
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Primates; Catarrhini; Homnidae; Homo.

REFERENCE 1 (bases 1 to 463)
NIH-MGC <http://mgc.nci.nih.gov/>
National Institutes of Health, Mammalian Gene Collection (MGC)
Unpublished (1999)
On Jun 10, 2003 this sequence version replaced gi:31585603.
Contact: Daniela S. Gerhard, Ph.D.
Office of Cancer Genomics
National Cancer Institute / NIH
Bldg. 31 Rm10A07 Bethesda, MD 20892
Email: cgabs-remail.nih.gov
Tissue Procurement: Narayan Bhat
cDNA Library Preparation: Bhat Laboratory
cDNA Library Arrayed by: The I.M.A.G.E. Consortium (LNL)
DNA Sequencing by: Agencourt Bioscience Corporation
Clone distribution: MGC clone distribution information can be
found through the I.M.A.G.E. Consortium/LNL at:
<http://image.llnl.gov>
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PCR-amplified using gene-specific primers to contain the
complete open reading frame (based on known gene sequences
available from NCBI's RefSeq). Template for PCR is cDNA
derived from either pooled cytoplasmic polyA RNA from 30
cells lines or pooled total RNA from 10 different tissues
(from BD Biosciences/Clontech and Washington University).
PCR products are directionally cloned into the loxp sites

REFERENCE
AUTHORS
TITLE
JOURNAL
COMMENT

Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Primates; Catarrhini; Homiidae; Homo.
1 (bases 1 to 489)
NIH-MGC <http://mgc.nci.nih.gov/>.
National Institutes of Health, Mammalian Gene Collection (MGC)
Unpublished (1999)
On Jun 10, 2003 this sequence version replaced gi:31585604.
Contact: Daniela S. Gerhard, Ph.D.
Email: cgabs-remail.nih.gov
Bldg. 31 Rm10A07 Bethesda, MD 20892
Email: cgabs-remail.nih.gov
Tissue Procurement: Narayan Bhat
CDNA Library Preparation: Bhat Laboratory
CDNA Library Arrayed by: The I.M.A.G.E. Consortium (LNL)
DNA Sequencing by: Agencourt Bioscience Corporation
Clone distribution: MGC clone distribution information can be
found through the I.M.A.G.E. Consortium/LNL at:
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Location/Qualifiers

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loxP-HindIII; Clones from this library have been
PCR-amplified using gene-specific primers to contain the
complete open reading frame (based on known gene sequences
available from NCBI's RefSeq). Template for PCR is cDNA
derived from either pooled cytoplasmic polyA RNA from 30
cells lines or pooled total RNA from 10 different tissues
(from BD Biosciences/Clontech and Washington University).
PCR products are directionally cloned into the loxp sites
of the pDNR-Dual vector. Library constructed by Dr.
Narayan Bhat, Earl Bere, III and Hongling Liao (Gene
Expression Laboratory, Research Technology Program, SAIC
Frederick, NCI-Frederick, Frederick, MD 21702). For
information on which gene each clone represents, please
visit our anonymous ftp site at
ftp://image.llnl.gov/image/rearranged_plates/IRBK_prev.dat
a Note: this is a NIH_MGC Library."

ORIGIN

Query Match 66.2%; Score 266.2; DB 6; Length 489;
Best Local Similarity 80.4%; Pred. No. 4.6e-64;
Matches 324; Conservative 0; Mismatches 78; Indels 1; Gaps 1;

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RESULT 15

LOCUS

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Homo sapiens CDNA clone IMAGE:7216996, containing frame-shift
errors.

ACCESSION

VERSION

BC069137.1 GI:46575644

KEYWORDS

SOURCE

ORGANISM

REFERENCE

1 (bases 1 to 817)
Strausberg R.L., Reingold E.A., Grouse L.H., Derge J.G.,
Klausner R.D., Collins F.S., Wagner L., Shennan C.M., Schuler G.D.,
Altschul S.F., Zeeberg B., Buetow K.H., Schaefer C.F., Bhat N.K.,
Hopkins R.F., Jordan H., Moore T., Max S.I., Wang J., Hsieh F.,
Diatchenko L., Marusina K., Farmer A.A., Rubin G.M., Hong L.,
Shaplenko M., Soares M.B., Donald M.F., Casavant T.L.,
Schaefer T.E., Brownstein M.J., Ueda T.B., Toshiyuki S.,
Carninci P., Prange C., Raha S.S., Loquellano N.A., Peters G.J.,
Abrams R.D., Mulhany S.J., Bosak S.A., McEwan P.J.,
McKernan K.J., Malek J.A., Gunaratne P.H., Richards S.,
Morley K.C., Hale S., Garcia A.M., Gay L.J., Huiyk S.W.,
Villalon D.K., Muzny D.M., Sodergren E.J., Lu X., Gibbs R.A.,
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Boutard G.G., Blakesley R.W., Touchman D.W., Green E.D.,
Dickson M.C., Rodriguez A.C., Grimwood J., Schmutz J., Myers R.M.,
Butterfield Y.S., Krzywinski M.I., Skalski U., Small J.D.,
Schnerch A., Schein J.E., Jones S.J. and Marra M.A.,
Generation and initial analysis of more than 15,000 full-length
human and mouse cDNA sequences
Proc. Natl. Acad. Sci. U.S.A. 99 (26), 16899-16903 (2002)

JOURNAL
PUBMED
REFERENCES
AUTHORS
TITLE
JOURNAL
2 (bases 1 to 817)
Strausberg, R.
Direct Submission
Submitted (16-APR-2004) National Institutes of Health, Mammalian
Gene Collection (MGC), Cancer Genomics Office, National Cancer
Institute, 31 Center Drive, Room 11A03, Bethesda, MD 20892-2590,
USA

NIH-MGC Project URL: <http://mgc.nci.nih.gov>
Contact: MGC help desk
Email: cgabs-remail.nih.gov

REMARK

Tissue Procurement: Anup Madan, University of Iowa
CDNA Library Preparation: Anup Madan, University of Iowa
DNA Sequencing by: Neurogenetics Research Lab,
200 B EMBR, University of Iowa, Iowa City, IA-52242
anup-madan@uiowa.edu
Jasica Fahey, Tim Nelson, Jae Goon Yoon and Anup Madan
Clone distribution: MGC clone distribution information can be found
through the I.M.A.G.E. Consortium/LNL at: <http://image.llnl.gov>
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This clone has the following problem: frame shifted.

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Best Local Similarity 80.4%; Pred. No. 5.1e-64;  
Matches 324; Conservative 0; Mismatches 78; Indels 1; Gaps 1;  
  
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Db 45 ATGAGATGCTTCGATTTGATTTGCTAGCTCTGGGCTGCTAGTTTTCGCTT 104  
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GenCore version 5.1.6
Copyright (c) 1993 - 2005 Compugen Ltd.

OM nucleic - nucleic search, using sw model

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Gapop 60.0 , Gapext 60.0

Searched: 4708233 seqs, 24227607955 residues

Word size : 0

Total number of hits satisfying chosen parameters: 9416466

Minimum DB seq length: 0
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Post-processing: Listing first 45 summaries

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2: gb_hcg: *
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13: gb_un: *
14: gb_vl: *

Pred. No. is the number of results predicted by chance to have a
score greater than or equal to the score of the result being printed,
and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	Query Match	Length	DB ID	Description
1	345	100.0	345	6	BD211562 Canine an
2	345	100.0	345	6	BD211563 Canine an
3	345	100.0	345	6	AR241540 Sequence
4	345	100.0	345	6	AR241541 Sequence
5	345	100.0	345	6	AR254496 Sequence
6	345	100.0	345	6	AR254497 Sequence
7	345	100.0	402	6	BD211560 Canine an
8	345	100.0	402	6	BD211561 Canine an
9	345	100.0	402	6	AR241538 Sequence
10	345	100.0	402	6	AR241539 Sequence
11	345	100.0	402	6	AR254494 Sequence
12	345	100.0	402	6	AR254495 Sequence
13	345	100.0	610	4	AF313199 Canis fam
14	345	100.0	610	6	BD211558 Canine an
15	345	100.0	610	6	BD211559 Canine an
16	345	100.0	610	6	AR241536 Sequence
17	345	100.0	610	6	AR241537 Sequence
18	345	100.0	610	6	AR254492 Sequence
19	345	100.0	610	6	AR254493 Sequence

20	336	97.4	405	6	AR300436 Sequence
21	336	97.4	405	6	AX083939 Sequence
22	264	76.5	356	4	AF091133 Canis fam
23	250	72.5	343	6	AX083948 Sequence
24	129	37.4	1658	4	AF313192 Canis fam
25	43	12.5	520	4	OA035038
26	43	12.5	1140	4	OA1LV1
27	42	12.2	405	4	SSC010088
28	42	12.2	529	4	SSC133452
29	41	11.9	405	4	BRTMTLEU5
30	41	11.9	197131	4	AC149665
31	40	11.6	405	4	ECU91947
32	30	8.7	354	4	AF051372
33	30	8.7	405	4	AF068770
34	30	8.7	838	4	AF025436
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36	28	8.1	405	9	AF294756
37	28	8.1	564	10	CPJ34588
38	25	7.2	150124	2	AC148886
39	25	7.2	167036	2	AC148855
40	22	6.4	450	4	OA1LV2
41	21	6.1	36	6	BD211603
42	21	6.1	36	6	AR241581
43	21	6.1	36	6	AR254537
44	21	6.1	64	6	105453
45	21	6.1	370	6	A00350

ALIGNMENTS

RESULT 1
LOCUS BD211562 345 bp DNA linear PAT 17-JUN-2003
DEFINITION Canine and feline immunoregulatory proteins, nucleic acid molecules
and method of using the same.
ACCESSION BD211562
VERSION BD211562.1 GI:33021332
KEYWORDS JP 2002516104-A/68.
SOURCE JP 2002516104-A/68.
ORGANISM Canis familiaris (dog)
Canis familiaris
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Carnivora; Fissipedia; Canidae; Canis.

REFERENCE Sim G., Yang S., Dreitz M.J. and Wonderling R.S.
1 (bases 1 to 345)
Canine and feline immunoregulatory proteins, nucleic acid molecules
and method of using the same
Patent: JP 2002516104-A 68 04-JUN-2002;
HESKA CORP

JOURNAL

OS Canis familiaris (dog)
PN JP 2002516104-A/68
PD 04-JUN-2002
PF 28-MAY-1999 JP 2000551002
PR 29-MAY-1998 US 60/087306
PI GEKKEB SIM, SHUMIN YANG, MATTHEW J DREITZ, RAMANI S WONDERLING PC
C12N15/09, A61K31/7088, A61K38/00, A61K38/21, A61K39/00, A61K39/395,
A61K39/395.

COMMENT

PC A61K45/00, A61K48/00, A61P37/02, A61P37/04, C07K14/535,
PC C07K14/54,
PC C07K14/56, C07K14/705, C07K16/24, C07K16/28, C12N1/21, C12N5/10, PC
G01N33/15,
PC G01N33/50, C12N15/00, A61K37/02, A61K37/56, C12N5/00 CC Canine
and feline immunoregulatory proteins, nucleic acid CC
molecules and
CC method of using the same
FH Key Location/Qualifiers
FT CDS Location/Qualifiers
(1)..(345).

FEATURES

source
1..345
/organism="Canis familiaris"
/mol_type="genomic DNA"
/db_xref="taxon:9615"
ORIGIN

Query Match 100.0%; Score 345; DB 6; Length 345;
Best Local Similarity 100.0%; Pred. No. 6.9e-180;
Matches 345; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 TTGCTGTAGAAAAATCCCATGATAGACTGTGCGAGAGACTTGACACTGCTTCCACT 60
DB 1 TTGCTGTAGAAAAATCCCATGATAGACTGTGCGAGAGACTTGACACTGCTTCCACT 60
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QY 121 CACCACTGTGCTGATTAAGAAAGTTTTCAGGGTATAGACATTTGAAGAACCAACTGCC 180
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QY 241 CGCCAAAAAAGGTGTGCGAGAGAAAGATGAGAGTGAACAAAGTTCCTAGACTACCTG 300
DB 241 CGCCAAAAAAGGTGTGCGAGAGAAAGATGAGAGTGAACAAAGTTCCTAGACTACCTG 300
QY 301 CAACTATTTCTTGTGTATTAACACCGAGTGAACCGGAAAGT 345
DB 301 CAACTATTTCTTGTGTATTAACACCGAGTGAACCGGAAAGT 345

RESULT 2
BD211563/c 345 bp DNA linear PAT 17-JUN-2003
LOCUS BD211563
DEFINITION Canine and feline immunoregulatory proteins, nucleic acid molecules and method of using the same.
ACCESSION BD211563.1 GI:33021333
VERSION JP 2002516104-A/69.
KEYWORDS Canis familiaris (dog)
SOURCE Canis familiaris
ORGANISM Canis familiaris
REFERENCE 1 (bases 1 to 345)
AUTHORS Sim,G., Yang,S., Dreitz,M.J. and Wonderling,R.S.
TITLE Canine and feline immunoregulatory proteins, nucleic acid molecules and method of using the same
JOURNAL Patent: JP 2002516104-A 69 04-JUN-2002;
COMMENT HBSKA CORP
OS Canis familiaris (dog)
PN JP 2002516104-A/69
PD 04-JUN-2002
PF 28-MAY-1999 JP 2000551002
PR 29-MAY-1998 US 60/087306
PI GEXNER SIM,SHUMIN YANG,MATTHEW J DREITZ,RAMANI S WONDERLING PC
PC C12N15/09,A61K31/7086,A61K38/00,A61K39/00,A61K39/395,
PC A61K45/00,A61K48/00,A61P37/02,A61P37/04,C07K14/475,C07K14/535,
PC C07K14/54,
PC C07K14/56,C07K14/705,C07K16/24,C07K16/28,C12N1/21,C12N5/10, PC
G01N33/15,
PC G01N33/50,C12N15/00,A61K37/02,A61K37/66,C12N5/00 CC Canine
and feline immunoregulatory proteins, nucleic acid CC
molecules and
CC method of using the same
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FT source 1..345
FT location/Qualifiers
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location/Qualifiers
1..345
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/organism="Canis familiaris"
/mol_type="genomic DNA"
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FEATURES
source
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Query Match 100.0%; Score 345; DB 6; Length 345;
Best Local Similarity 100.0%; Pred. No. 6.9e-180;
Matches 345; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 TTGCTGTAGAAAAATCCCATGATAGACTGTGCGAGAGACTTGACACTGCTTCCACT 60
DB 345 TTGCTGTAGAAAAATCCCATGATAGACTGTGCGAGAGACTTGACACTGCTTCCACT 286
QY 61 CATGAACTTGCTGTAGAGGCGATGGGAACCTGATGATTCCTACTCTGAAAAATAAAT 120
DB 61 CATGAACTTGCTGTAGAGGCGATGGGAACCTGATGATTCCTACTCTGAAAAATAAAT 120
QY 285 CATGAACTTGCTGTAGAGGCGATGGGAACCTGATGATTCCTACTCTGAAAAATAAAT 226
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RESULT 3
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LOCUS AR241540
DEFINITION Sequence 85 from patent US 6471957.
ACCESSION AR241540
VERSION AR241540.1 GI:27287249
KEYWORDS
SOURCE Unknown.
ORGANISM Unknown.
REFERENCE 1 (bases 1 to 345)
AUTHORS Sim,G.-K., Yang,S., Dreitz,M.J. and Wonderling,R.S.
TITLE Canine IL-4 immunoregulatory proteins and uses thereof
JOURNAL Patent: US 6471957-A 85 29-OCT-2002;
FEATURES location/Qualifiers
source 1..345
/organism="unknown"
/mol_type="genomic DNA"

ORIGIN

QY 301 CAAGTATTTCTTGCTGTATTAACACCGAGTGAACCGGAAAGT 345
Db 301 CAAGTATTTCTTGCTGTATTAACACCGAGTGAACCGGAAAGT 345

RESULT 4
AR241541/c AR241541 345 bp DNA linear PAT 20-DEC-2002
LOCUS Sequence 87 from patent US 6471957.
DEFINITION AR241541
ACCESSION AR241541
VERSION AR241541.1 GI:27287250
KEYWORDS
SOURCE Unknown.
ORGANISM Unknown.
REFERENCE 1 (bases 1 to 345)
AUTHORS Sim,G.-K., Yang,S., Dreitz,M.J. and Wonderling,R.S.
TITLE Canine IL-4 Immunoregulatory proteins and uses thereof
JOURNAL Patent: US 6471957-A 87 29-OCT-2002;
FEATURES Location/Qualifiers
source 1..345

ORIGIN
/organism="unknown"
/mol_type="genomic DNA"

Query Match 100.0%; Score 345; DB 6; Length 345;
Best Local Similarity 100.0%; Pred. No. 6,9e-180;
Matches 345; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 TTGCTGTAGAAAATCCCATGATAGACTGGTGCAGAGACCTTGACACTGCTCTCCACT 60
Db 345 TTGCTGTAGAAAATCCCATGATAGACTGGTGCAGAGACCTTGACACTGCTCTCCACT 286
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Db 285 CATGGAACCTTGCTGTAGAGCGATGGGAACTGTGATCTTCTACTCTGAAAATATAAAT 226
QY 121 CACCAACTGTGACATTAAAGAGTTTTCAGGGTATAGACATGGAAGAACCAACTGCC 180
Db 225 CACCAACTGTGACATTAAAGAGTTTTCAGGGTATAGACATGGAAGAACCAACTGCC 166
QY 181 CACGGGAGGCTGTGATTAACCTATTCCTTTTAAATAAAGAACATAGAG 240
Db 165 CACGGGAGGCTGTGATTAACCTATTCCTTTTAAATAAAGAACATAGAG 106
QY 241 CGCCAAAAAAGAGTGTGACGAGAAAGATGAGAGTACAAAGTTCTAGACTACTG 300
Db 105 CGCCAAAAAAGAGTGTGACGAGAAAGATGAGAGTACAAAGTTCTAGACTACTG 46
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Db 45 CAAGTATTTCTTGCTGTATTAACACCGAGTGAACCGGAAAGT 1

RESULT 5
AR254496 AR254496 345 bp DNA linear PAT 20-DEC-2002
LOCUS Sequence 85 from patent US 6482403.
DEFINITION AR254496
ACCESSION AR254496
VERSION AR254496.1 GI:27303384
KEYWORDS
SOURCE Unknown.
ORGANISM Unknown.
REFERENCE 1 (bases 1 to 345)
AUTHORS Sim,G.-K., Yang,S., Dreitz,M.J. and Wonderling,R.S.
TITLE Canine IL-13 Immunoregulatory proteins and uses thereof
JOURNAL Patent: US 6482403-A 85 19-NOV-2002;
FEATURES Location/Qualifiers
source 1..345

ORIGIN
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ORIGIN
Query Match 100.0%; Score 345; DB 6; Length 345;
Best Local Similarity 100.0%; Pred. No. 6,9e-180;
Matches 345; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 TTGCTGTAGAAAATCCCATGATAGACTGGTGCAGAGACCTTGACACTGCTCTCCACT 60
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Db 121 CACCAACTGTGACATTAAAGAGTTTTCAGGGTATAGACATGGAAGAACCAACTGCC 180
QY 181 CACGGGAGGCTGTGATTAACCTATTCCTTTTAAATAAAGAACATAGAG 240
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RESULT 6
AR254497/c AR254497 345 bp DNA linear PAT 20-DEC-2002
LOCUS Sequence 87 from patent US 6482403.
DEFINITION AR254497
ACCESSION AR254497
VERSION AR254497.1 GI:27303385
KEYWORDS
SOURCE Unknown.
ORGANISM Unknown.
REFERENCE 1 (bases 1 to 345)
AUTHORS Sim,G.-K., Yang,S., Dreitz,M.J. and Wonderling,R.S.
TITLE Canine IL-13 Immunoregulatory proteins and uses thereof
JOURNAL Patent: US 6482403-A 87 19-NOV-2002;
FEATURES Location/Qualifiers
source 1..345

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Query Match 100.0%; Score 345; DB 6; Length 345;
Best Local Similarity 100.0%; Pred. No. 6,9e-180;
Matches 345; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 TTGCTGTAGAAAATCCCATGATAGACTGGTGCAGAGACCTTGACACTGCTCTCCACT 60
Db 345 TTGCTGTAGAAAATCCCATGATAGACTGGTGCAGAGACCTTGACACTGCTCTCCACT 286
QY 61 CATGGAACCTTGCTGTAGAGCGATGGGAACTGTGATCTTCTACTCTGAAAATATAAAT 120
Db 285 CATGGAACCTTGCTGTAGAGCGATGGGAACTGTGATCTTCTACTCTGAAAATATAAAT 226
QY 121 CACCAACTGTGACATTAAAGAGTTTTCAGGGTATAGACATGGAAGAACCAACTGCC 180
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QY 301 CAAGTATTTCTGTGTATTAACACCGAGTGGACACCGGAAAGT 345

Db 45 CAAGTATTTCTGTGTATTAACACCGAGTGGACACCGGAAAGT 1

RESULT 7
BD211560
LOCUS
DEFINITION
ACCESSION
VERSION
KEYWORDS
SOURCE
ORGANISM

BD211560 402 bp DNA linear PAT 17-JUL-2003
Canine and feline immunoregulatory proteins, nucleic acid molecules
and method of using the same.
BD211560
BD211560.1 GI:33021330
JP 2002516104-A/66.
Canis familiaris (dog)
Canis familiaris
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Carnivora; Fissipedia; Canidae; Canis.
1 (bases 1 to 402)
Sim,G., Yang,S., Dretz,M.J. and Wonderling,R.S.
Canine and feline immunoregulatory proteins, nucleic acid molecules
and method of using the same
Patent: JP 2002516104-A 66 04-JUN-2002;
HESKA CORP
OS Canis familiaris (dog)
PN JP 2002516104-A/66
PD 04-JUN-2002
PF 28-MAY-1999 JP 2000551002
PR 29-MAY-1998 US 60/087306
PI GEKKEB SIM,SHUMIN YANG,MATTHEW J DREITZ,RAMANI S WONDERLING PC
C12N15/09,A61K31/7088,A61K38/00,A61K39/00,A61K39/395,
PC A61K39/395,
PC A61K45/00,A61K48/00,A61P37/02,A61P37/04,C07K14/475,C07K14/535,
PC C07K14/54,
PC C07K14/56,C07K14/705,C07K16/24,C07K16/28,C12N1/21,C12N5/10, PC
G01N33/15,
PC G01N33/50,C12N15/00,A61K37/02,A61K37/66,C12N5/00 CC Canine
and feline immunoregulatory proteins, nucleic acid CC
molecules and
CC method of using the same
FH Key Location/Qualifiers
FT source 1..402
Location/Qualifiers
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/mol_type="genomic DNA"
/db_xref="taxon:9615"

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/mol_type="genomic DNA"
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ORIGIN
Query Match 100.0%; Score 345; DB 6; Length 402;
Best Local Similarity 100.0%; Pred. No. 6.9e-180;
Matches 345; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 TTTGCTGTAGAAAATCCCATGAATAGACTGTGTCAGAGACTTGACACTGCTCTCCACT 60

Db 58 TTGCTGTAGAAAATCCCATGAATAGACTGTGTCAGAGACTTGACACTGCTCTCCACT 117

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Db 118 CATGAACTTGGCTGATAGGCGATGGGAACCTGATGATTTCTACTCTCTGAAAAATTAATAAT 177

QY 121 CACCACTGTGCTATTAAGAAAGTTTTCAGGGTATAGACACATTGAGAAACCAACTGCC 180

Db 178 CACCACTGTGCTATTAAGAAAGTTTTCAGGGTATAGACACATTGAGAAACCAACTGCC 237

QY 181 CACGGGAGGCTGTGATTAACATATTCAAAACCTGTCTTTAATTAAGAAACACATAGAG 240

Db 238 CACGGGAGGCTGTGATTAACATATTCAAAACCTGTCTTTAATTAAGAAACACATAGAG 297

QY 241 CGCCAAAAAAGGTGTGACAGAGAAAGATGAGAGTGCACAAAGTTCTAGACTACTG 300

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QY 301 CAAGTATTTCTGTGTATTAACACCGAGTGGACACCGGAAAGT 345

Db 358 CAAGTATTTCTGTGTATTAACACCGAGTGGACACCGGAAAGT 402

RESULT 8
BD211561/c
LOCUS
DEFINITION
ACCESSION
VERSION
KEYWORDS
SOURCE
ORGANISM

BD211561 402 bp DNA linear PAT 17-JUL-2003
Canine and feline immunoregulatory proteins, nucleic acid molecules
and method of using the same.
BD211561
BD211561.1 GI:33021331
JP 2002516104-A/67.
Canis familiaris (dog)
Canis familiaris
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Carnivora; Fissipedia; Canidae; Canis.
1 (bases 1 to 402)
Sim,G., Yang,S., Dretz,M.J. and Wonderling,R.S.
Canine and feline immunoregulatory proteins, nucleic acid molecules
and method of using the same
Patent: JP 2002516104-A 67 04-JUN-2002;
HESKA CORP
OS Canis familiaris (dog)
PN JP 2002516104-A/67
PD 04-JUN-2002
PF 28-MAY-1999 JP 2000551002
PR 29-MAY-1998 US 60/087306
PI GEKKEB SIM,SHUMIN YANG,MATTHEW J DREITZ,RAMANI S WONDERLING PC
C12N15/09,A61K31/7088,A61K38/00,A61K38/21,A61K39/00,A61K39/395,
PC A61K39/395,
PC A61K45/00,A61K48/00,A61P37/02,A61P37/04,C07K14/475,C07K14/535,
PC C07K14/54,
PC C07K14/56,C07K14/705,C07K16/24,C07K16/28,C12N1/21,C12N5/10, PC
G01N33/15,
PC G01N33/50,C12N15/00,A61K37/02,A61K37/66,C12N5/00 CC Canine
and feline immunoregulatory proteins, nucleic acid CC
molecules and
CC method of using the same
FH Key Location/Qualifiers
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Location/Qualifiers
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/organism="Canis familiaris"
/mol_type="genomic DNA"
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FEATURES
source
1..402
Location/Qualifiers
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ORIGIN
Query Match 100.0%; Score 345; DB 6; Length 402;
Best Local Similarity 100.0%; Pred. No. 6.9e-180;
Matches 345; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 TTTGCTGTAGAAAATCCCATGAATAGACTGTGTCAGAGACTTGACACTGCTCTCCACT 60

Db 345 TTGCTGTAGAAAATCCCATGAATAGACTGTGTCAGAGACTTGACACTGCTCTCCACT 286

QY 61 CATGAACTTGGCTGATAGGCGATGGGAACCTGATGATTTCTACTCTCTGAAAAATTAATAAT 120

Db 285 CATGAACTTGGCTGATAGGCGATGGGAACCTGATGATTTCTACTCTCTGAAAAATTAATAAT 226

QY 121 CACCACTGTGCTATTAAGAAAGTTTTCAGGGTATAGACACATTGAGAAACCAACTGCC 180

Db 225 CACCACTGTGCTATTAAGAAAGTTTTCAGGGTATAGACACATTGAGAAACCAACTGCC 166

QY 181 CACGGGAGGCTGTGATTAACATATTCAAAACCTGTCTTTAATTAAGAAACACATAGAG 240

Db 165 CACGGGAGGCTGTGATTAACATATTCAAAACCTGTCTTTAATTAAGAAACACATAGAG 106

QY 241 CGCCAAAAAAGGTGTGACAGAGAAAGATGAGAGTGCACAAAGTTCTAGACTACTG 300

Db 105 CGCCAAAAAAGGTGTGACAGAGAAAGATGAGAGTGAACAAAGTTCCTAGACTACCTG 46

Qy 301 CAAGTATTTCTTGCTGTATTAATTAACACCGAGTGAACACCGGAAAGT 345

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RESULT 9

AR241538

LOCUS AR241538 402 bp DNA linear PAT 20-DEC-2002

DEFINITION Sequence 83 from patent US 6471957.

ACCESSION AR241538

VERSION AR241538.1 GI:27287247

KEYWORDS

SOURCE Unknown.

ORGANISM Unclassified.

REFERENCE 1 (bases 1 to 402)

AUTHORS Sim,G.-K., Yang,S., Dreitz,M.J. and Wonderling,R.S.

TITLE Canine IL-4 immunoregulatory proteins and uses thereof

JOURNAL Patent: US 6471957-A 83 29-OCT-2002;

FEATURES

Location/Qualifiers

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/organism="unknown"

/mol_type="genomic DNA"

ORIGIN

Query Match 100.0%; Score 345; DB 6; Length 402;

Best Local Similarity 100.0%; Pred. No. 6,9e-180;

Matches 345; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 TTGCTGTAGAAAATCCCATGAATAGACTGTGTGACAGAGACTTGACACTGCTCCACT 60

Db 58 TTGCTGTAGAAAATCCCATGAATAGACTGTGTGACAGAGACTTGACACTGCTCCACT 117

Qy 61 CATGAACTTGCTGTAGAGGAGGAACTGATGATCTTCTACTCTCTGAAAATTAATAAT 120

Db 118 CATGAACCTTGCTGTAGAGGAGGAACTGATGATCTTCTACTCTCTGAAAATTAATAAT 177

Qy 121 CACCACTGTGCACTTAAGAAAGTTTTCAGGGTATTAACACATTTGAAGAACCAACTGCC 180

Db 178 CACCACTGTGCACTTAAGAAAGTTTTCAGGGTATTAACACATTTGAAGAACCAACTGCC 237

Qy 181 CACGGGAGGCTGTGATTAACCTATTCCTCAAACTTGTCTTAATTAAGAACACATAGAG 240

Db 238 CACGGGAGGCTGTGATTAACCTATTCCTCAAACTTGTCTTAATTAAGAACACATAGAG 297

Qy 241 CGCCAAAAAAGGTGTGACAGAGAAAGATGAGAGTGAACAAAGTTCCTAGACTACCTG 300

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Db 358 CAAGTATTTCTTGCTGTATTAATTAACACCGAGTGAACCGGAAAGT 402

RESULT 10

AR241539/c

LOCUS AR241539 402 bp DNA linear PAT 20-DEC-2002

DEFINITION Sequence 84 from patent US 6471957.

ACCESSION AR241539

VERSION AR241539.1 GI:27287248

KEYWORDS

SOURCE Unknown.

ORGANISM Unclassified.

REFERENCE 1 (bases 1 to 402)

AUTHORS Sim,G.-K., Yang,S., Dreitz,M.J. and Wonderling,R.S.

TITLE Canine IL-4 immunoregulatory proteins and uses thereof

JOURNAL Patent: US 6471957-A 84 29-OCT-2002;

FEATURES

Location/Qualifiers

1..402

/organism="unknown"

ORIGIN /mol_type="genomic DNA"

Query Match 100.0%; Score 345; DB 6; Length 402;

Best Local Similarity 100.0%; Pred. No. 6,9e-180;

Matches 345; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 TTGCTGTAGAAAATCCCATGAATAGACTGTGTGACAGAGACTTGACACTGCTCCACT 60

Db 345 TTGCTGTAGAAAATCCCATGAATAGACTGTGTGACAGAGACTTGACACTGCTCCACT 286

Qy 61 CATGAACTTGCTGTAGAGGAGGAACTGATGATCTTCTACTCTCTGAAAATTAATAAT 120

Db 285 CATGAACCTTGCTGTAGAGGAGGAACTGATGATCTTCTACTCTCTGAAAATTAATAAT 226

Qy 121 CACCACTGTGCACTTAAGAAAGTTTTCAGGGTATTAACACATTTGAAGAACCAACTGCC 180

Db 225 CACCACTGTGCACTTAAGAAAGTTTTCAGGGTATTAACACATTTGAAGAACCAACTGCC 166

Qy 181 CACGGGAGGCTGTGATTAACCTATTCCTCAAACTTGTCTTAATTAAGAACACATAGAG 240

Db 165 CACGGGAGGCTGTGATTAACCTATTCCTCAAACTTGTCTTAATTAAGAACACATAGAG 106

Qy 241 CGCCAAAAAAGGTGTGACAGAGAAAGATGAGAGTGAACAAAGTTCCTAGACTACCTG 300

Db 105 CGCCAAAAAAGGTGTGACAGAGAAAGATGAGAGTGAACAAAGTTCCTAGACTACCTG 46

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Db 45 CAAGTATTTCTTGCTGTATTAATTAACACCGAGTGAACCGGAAAGT 1

RESULT 11

AR254494

LOCUS AR254494 402 bp DNA linear PAT 20-DEC-2002

DEFINITION Sequence 83 from patent US 6482403.

ACCESSION AR254494

VERSION AR254494.1 GI:27303382

KEYWORDS

SOURCE Unknown.

ORGANISM Unclassified.

REFERENCE 1 (bases 1 to 402)

AUTHORS Sim,G.-K., Yang,S., Dreitz,M.J. and Wonderling,R.S.

TITLE Canine IL-13 immunoregulatory proteins and uses thereof

JOURNAL Patent: US 6482403-A 83 19-NOV-2002;

FEATURES

Location/Qualifiers

1..402

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Query Match 100.0%; Score 345; DB 6; Length 402;

Best Local Similarity 100.0%; Pred. No. 6,9e-180;

Matches 345; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

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Qy 61 CATGAACCTTGCTGTAGAGGAGGAACTGATGATCTTCTACTCTCTGAAAATTAATAAT 120

Db 118 CATGAACCTTGCTGTAGAGGAGGAACTGATGATCTTCTACTCTCTGAAAATTAATAAT 177

Qy 121 CACCACTGTGCACTTAAGAAAGTTTTCAGGGTATTAACACATTTGAAGAACCAACTGCC 180

Db 178 CACCACTGTGCACTTAAGAAAGTTTTCAGGGTATTAACACATTTGAAGAACCAACTGCC 237

Qy 181 CACGGGAGGCTGTGATTAACCTATTCCTCAAACTTGTCTTAATTAAGAACACATAGAG 240

Db 238 CACGGGAGGCTGTGATTAACCTATTCCTCAAACTTGTCTTAATTAAGAACACATAGAG 297

Qy 241 CGCCAAAAAAGGTGTGACAGAGAAAGATGAGAGTGAACAAAGTTCCTAGACTACCTG 300

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RESULT 12
AR254495/c
LOCUS AR254495 402 bp DNA linear PAT 20-DEC-2002
DEFINITION Sequence 84 from patent US 6482403.
ACCESSION AR254495
VERSION AR254495.1 GI:27303383
KEYWORDS
SOURCE Unknown.
ORGANISM Unknown.
REFERENCE 1 (bases 1 to 402)
AUTHORS Sim,G.-K., Yang,S., Dreitz,M.J. and Wonderling,R.S.
TITLE Canine IL-13 immunoregulatory proteins and uses thereof
JOURNAL Patent: US 6482403-A 84 19-NOV-2002;
FEATURES
source location/Qualifiers
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Best Local Similarity 100.0%; Pred. No. 6,9e-180;
Matches 345; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

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Db 285 CATGAACCTTGCTGATAGGCGATGGGAACTCTGATGTTCTCTACTCTCTGAAAAATAAAT 226
Qy 121 CACCAACTGTGATTAAGAAAGTTTTCAGGGTATAGACATTTGAAGAACCAAACTGCC 180
Db 225 CACCAACTGTGATTAAGAAAGTTTTCAGGGTATAGACATTTGAAGAACCAAACTGCC 166
Qy 181 CACGGGAGGCTGTGATTAACCTATTCGAAACCTTCTTTAATAAAGAACATAGAG 240
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Qy 241 CGCCAAAAGAGTGTGACGAGGAAAGATGAGAGTGAACAAAGTTCTTAGACTACTG 300
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RESULT 13
AF331919
LOCUS AF331919 610 bp mRNA linear MAM 04-OCT-2001
DEFINITION Canis familiaris interleukin-5 mRNA, complete cds.
ACCESSION AF331919
VERSION AF331919.1 GI:15919180
KEYWORDS
SOURCE Canis familiaris (dog)
ORGANISM Canis familiaris (dog)
REFERENCE 1 (bases 1 to 610)
AUTHORS Mammalia; Eutheria; Carnivora; Fissipedia; Canidae; Canis.
TITLE Yang,S., Seilline,K.S., Weber,B. and McCall,C.
JOURNAL Canine interleukin-5: molecular characterization of the gene and expression of biologically active recombinant protein
J. Interferon Cytokine Res. 21 (6), 361-367 (2001)

MEDLINE 21334408
PUBMED 11440633
REFERENCE 2 (bases 1 to 610)
AUTHORS Yang,S.
TITLE Direct Submission
JOURNAL Submitted (22-DEC-2000) Immunology, Heska Corporation, 1613 Prospect Parkway, Ft Collins, CO 80525, USA
FEATURES
source location/Qualifiers
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29..433
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433..610

ORIGIN
3'UTR

Query Match 100.0%; Score 345; DB 4; Length 610;
Best Local Similarity 100.0%; Pred. No. 7e-180;
Matches 345; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

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Qy 121 CACCAACTGTGATTAAGAAAGTTTTCAGGGTATAGACATTTGAAGAACCAAACTGCC 180
Db 206 CACCAACTGTGATTAAGAAAGTTTTCAGGGTATAGACATTTGAAGAACCAAACTGCC 265
Qy 181 CACGGGAGGCTGTGATTAACCTATTCGAAACCTTCTTTAATAAAGAACATAGAG 240
Db 266 CACGGGAGGCTGTGATTAACCTATTCGAAACCTTCTTTAATAAAGAACATAGAG 325
Qy 241 CGCCAAAAGAGTGTGACGAGGAAAGATGAGAGTGAACAAAGTTCTTAGACTACTG 300
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RESULT 14
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LOCUS BD211558 610 bp DNA linear PAT 17-JUN-2003
DEFINITION Canine and feline immunoregulatory proteins, nucleic acid molecules and method of using the same.
ACCESSION BD211558
VERSION BD211558.1 GI:33021328
KEYWORDS
SOURCE Canis familiaris (dog)
ORGANISM Canis familiaris (dog)
REFERENCE 1 (bases 1 to 610)
AUTHORS Mammalia; Eutheria; Carnivora; Fissipedia; Canidae; Canis.
TITLE Sim,G., Yang,S., Dreitz,M.J. and Wonderling,R.S.
JOURNAL Canine and feline immunoregulatory proteins, nucleic acid molecules and method of using the same
Patent: JP 2002516104-A 64 04-JUN-2002;
COMMENT OS Canis familiaris (dog)

PN JP 2002516104-A/64
 PD 04-JUN-2002
 PR 28-MAY-1999 JP 2000551002
 PI 29-MAY-1998 US 60/087306
 PI GEKKEE SIM, SHUMIN YANG, MATTHEW J DREITZ, RAMANI S WONDERLING PC
 C12N15/09, A61K31/7088, A61K38/00, A61K38/21, A61K39/00, A61K39/395,
 PC A61K39/395,
 PC A61K45/00, A61K48/00, A61P37/02, A61P37/04, C07K14/475, C07K14/535,
 PC C07K14/54,
 PC C07K14/56, C07K14/705, C07K16/24, C07K16/28, C12N1/21, C12N5/10, PC
 G01N33/15
 PC G01N33/50, C12N15/00, A61K37/02, A61K37/66, C12N5/00 CC Canine
 and feline immunoregulatory proteins, nucleic acid CC
 molecules and
 CC method of using the same
 FH Key Location/Qualifiers
 FT CDS (29)..(430).
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 1..610
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 /mol_type="genomic DNA"
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ORIGIN

Query Match 100.0%; Score 345; DB 6; Length 610;
 Best Local Similarity 100.0%; Pred. No. 7e-180;
 Matches 345; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 TTGCTGTAGAAAATCCCATGATAGACTGTGCGAGAGACTTGACACTGCTTCCACT 60
 DB 86 TTGCTGTAGAAAATCCCATGATAGACTGTGCGAGAGACTTGACACTGCTTCCACT 145
 QY 61 CATGGAAGCTGGCTGATAGGCGATGGGAACTGATGATTCCTACTCCTCGAAATATAAAT 120
 DB 146 CATGGAAGCTGGCTGATAGGCGATGGGAACTGATGATTCCTACTCCTCGAAATATAAAT 205
 QY 121 CACCAACTGTGATTAAGAAGTTTTCAGGGTATAGACATTTGAAGAACCAACTGCC 180
 DB 206 CACCAACTGTGATTAAGAAGTTTTCAGGGTATAGACATTTGAAGAACCAACTGCC 265
 QY 181 CACGGGAGGCTGTGATTAACCTATTCGAAACTTGTCTTTAATTAAGAACAATAGAG 240
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 QY 241 CGCCAAAAAAGGTGTGAGAGAGAAAGATGAGAGTCAAGTCTAGACTACCTG 300
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 QY 301 CAAGTATTTCTTGCTGTATTAACACCGAGTGAACCCGAAAGT 345
 DB 386 CAAGTATTTCTTGCTGTATTAACACCGAGTGAACCCGAAAGT 430

RESULT 15
 BD211559/c 610 bp DNA linear PAT 17-JUN-2003
 LOCUS
 DEFINITION Canine and feline immunoregulatory proteins, nucleic acid molecules
 and method of using the same.

ACCESSION BD211559
 VERSION BD211559.1 GI:33021329
 KEYWORDS JP 2002516104-A/65.
 SOURCE
 ORGANISM Canis familiaris (dog)

Eukaryote; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
 Mammalia; Eutheria; Carnivora; Fissipedia; Canidae; Canis.

REFERENCE 1 (bases 1 to 610)
 AUTHORS Sim, G., Yang, S., Dreitz, M.J. and Wonderling, R.S.
 TITLE Canine and feline immunoregulatory proteins, nucleic acid molecules
 and method of using the same

JOURNAL Patent: JP 2002516104-A 65 04-JUN-2002;
 HESKA CORP

COMMENT
 OS Canis familiaris (dog)
 PN JP 2002516104-A/65

PD 04-JUN-2002
 PR 28-MAY-1999 JP 2000551002
 PI 29-MAY-1998 US 60/087306
 PI GEKKEE SIM, SHUMIN YANG, MATTHEW J DREITZ, RAMANI S WONDERLING PC
 C12N15/09, A61K31/7088, A61K38/00, A61K38/21, A61K39/00, A61K39/395,
 PC A61K39/395,
 PC A61K45/00, A61K48/00, A61P37/02, A61P37/04, C07K14/475, C07K14/535,
 PC C07K14/54,
 PC C07K14/56, C07K14/705, C07K16/24, C07K16/28, C12N1/21, C12N5/10, PC
 G01N33/15
 PC G01N33/50, C12N15/00, A61K37/02, A61K37/66, C12N5/00 CC Canine
 and feline immunoregulatory proteins, nucleic acid CC
 molecules and
 CC method of using the same
 FH Key Location/Qualifiers
 FT source 1..610
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ORIGIN

Query Match 100.0%; Score 345; DB 6; Length 610;
 Best Local Similarity 100.0%; Pred. No. 7e-180;
 Matches 345; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 TTGCTGTAGAAAATCCCATGATAGACTGTGCGAGAGACTTGACACTGCTTCCACT 60
 DB 525 TTGCTGTAGAAAATCCCATGATAGACTGTGCGAGAGACTTGACACTGCTTCCACT 466
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 DB 465 CATGGAAGCTGGCTGATAGGCGATGGGAACTGATGATTCCTACTCCTCGAAATATAAAT 406
 QY 121 CACCAACTGTGATTAAGAAGTTTTCAGGGTATAGACATTTGAAGAACCAACTGCC 180
 DB 405 CACCAACTGTGATTAAGAAGTTTTCAGGGTATAGACATTTGAAGAACCAACTGCC 346
 QY 181 CACGGGAGGCTGTGATTAACCTATTCGAAACTTGTCTTTAATTAAGAACAATAGAG 240
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 QY 241 CGCCAAAAAAGGTGTGAGAGAGAAAGATGAGAGTCAAGTCTAGACTACCTG 300
 DB 285 CGCCAAAAAAGGTGTGAGAGAGAAAGATGAGAGTCAAGTCTAGACTACCTG 226
 QY 301 CAAGTATTTCTTGCTGTATTAACACCGAGTGAACCCGAAAGT 345
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OM nucleic - nucleic search, using sw model

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Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

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4	345	100.0	402	AAZ55549	Canine in
5	345	100.0	610	AAZ55546	Canine in
6	345	100.0	610	AAZ55547	Canine in
7	336	97.4	405	AAZ55546	Canine in
8	336	97.4	405	AAZ55547	Canine in
9	336	97.4	405	AAZ55546	Canine in
10	336	97.4	405	AAZ55547	Canine in
11	336	97.4	405	AAZ55546	Canine in
12	336	97.4	405	AAZ55547	Canine in
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14	336	97.4	405	AAZ55547	Canine in
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27	21	6.1	816	3	AAAJ3338
28	21	6.1	816	3	AAAF20979
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30	21	6.1	816	10	ABZ96673
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32	21	6.1	816	11	ADJ13190
33	21	6.1	816	13	ADP56009
34	21	6.1	858	9	AAJ61293
35	21	6.1	858	9	AAJ61294
36	21	6.1	864	9	AAJ61295
37	21	6.1	864	9	AAJ61296
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ALIGNMENTS

RESULT 1
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ID AAZ55550 standard; cDNA; 345 BP.
XX
AC AAZ55550;
XX
DT 14-MAR-2000 (first entry)
XX
DE Canine mature interleukin-5 (IL-5) cDNA.
XX
XX Interleukin-5; IL-5; antibody; canine; inhibitor; immune response;
XX Immunoregulation; tumour; cancer; autoimmune disease; vaccine; ss.
XX
OS Canis familiaris.
XX
PN WO9961618-A2.
XX
PD 02-DEC-1999.
XX
PE 28-MAY-1999; 99WO-US011942.
XX
PR 29-MAY-1998; 98US-0087306P.
XX
PA (HESK-) HESKA CORP.
XX
PI Sim G, Yang S, Drexler MJ, Wonderling RS;
XX WPI; 2000-072623/06.
XX P-PSDB; AAY58220.
XX
PT Nucleic acid encoding immunoregulatory proteins from cats or dogs,
XX useful for treating or preventing e.g. tumors or autoimmune disease.
XX
PS Claim 1h; Page 226-227; 264pp; English.
XX
XX Sequences AAZ55546-255551 represent cDNA sequences encoding canine
XX interleukin-5 (IL-5). The invention relates to canine IL-4, canine or
XX feline IL-3 ligand, canine or feline CD40, canine or feline CD154 (CD40
XX ligand), canine IL-5, canine IL-13, feline interferon-alpha (IFN-alpha)
XX and feline granulocyte macrophage colony-stimulating factor (GM-CSF), and
XX nucleotides which encode these immunoregulatory proteins. The proteins,
XX their associated nucleic acids, specific antibodies and inhibitors may be
XX used as vaccines for therapeutic or prophylactic regulation of an immune

CC response in animals (particularly cats, dogs, horses and humans). They
CC may be used to treat autoimmune or infectious diseases including
CC allergies, tumours, inflammation and graft rejection, and to increase the
CC response from a co-administered antigen. The nucleotide sequences can
CC also be used for the recombinant production of a protein, while
CC nucleotide fragments are useful as probes, as amplification primers and
CC as sources of inhibitory therapeutics (e.g., antisense oligonucleotides).
CC The proteins may be used to raise antibodies and to screen for modulators
CC of activity, while the antibodies may be used in detection, and in drug
CC targeting
XX
SQ Sequence 345 BP; 120 A; 68 C; 78 G; 79 T; 0 U; 0 Other;
Query Match 100.0%; Score 345; DB 3; Length 345;
Best Local Similarity 100.0%; Pred. No. 2.3e-168;
Matches 345; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
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DB 301 CAAGTATTTCTTGTGTAATTAACACCGAGTGACACCGGAAAGT 345
RESULT 2
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ID AAZ5551 standard; cDNA; 345 BP.
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AC AAZ5551;
XX
DT 14-MAR-2000 (first entry)
XX
DE Canine mature Interleukin-5 (IL-5) cDNA complement.
XX
KM Interleukin-5; IL-5; antibody; canine; inhibitor; immune response;
KM immunoregulation; tumour; cancer; autoimmune disease; vaccine; 88.
XX
OS Canis familiaris.
XX
PN WO961618-A2.
XX
PD 02-DEC-1999.
XX
PF 28-MAY-1999; 99WO-US011942.
XX
PR 29-MAY-1998; 98US-0087306P.
XX
PA (HESK-) HESKA CORP.
XX
PI Sim G, Yang S, Dreitz WJ, Wonderling RS;
XX
XX WPI; 2000-072623/06.
XX
XX P-PSDB; AAY58220.
XX
PT Nucleic acids encoding immunoregulatory proteins from cats or dogs,

PT useful for treating or preventing e.g. tumors or autoimmune disease.
XX
XX Claim 1b; Page 228; 264pp; English.
XX
CC Sequences AAZ55546-25551 represent cDNA sequences encoding canine
CC Interleukin-5 (IL-5). The invention relates to canine IL-4, canine or
CC feline Flt-3 ligand, canine or feline CD40, canine or feline CD134 (CD40
CC ligand), canine IL-5, canine IL-13, feline Interferon-alpha (IFN-alpha)
CC and feline granulocyte macrophage colony-stimulating factor (GM-CSF), and
CC nucleotides which encode these immunoregulatory proteins. The proteins,
CC their associated nucleic acids, specific antibodies and inhibitors may be
CC used as vaccines for therapeutic or prophylactic regulation of an immune
CC response in animals (particularly cats, dogs, horses and humans). They
CC may be used to treat autoimmune or infectious diseases including
CC allergies, tumours, inflammation and graft rejection, and to increase the
CC response from a co-administered antigen. The nucleotide sequences can
CC also be used for the recombinant production of a protein, while
CC nucleotide fragments are useful as probes, as amplification primers and
CC as sources of inhibitory therapeutics (e.g., antisense oligonucleotides).
CC The proteins may be used to raise antibodies and to screen for modulators
CC of activity, while the antibodies may be used in detection, and in drug
CC targeting
XX
SQ Sequence 345 BP; 79 A; 78 C; 68 G; 120 T; 0 U; 0 Other;
Query Match 100.0%; Score 345; DB 3; Length 345;
Best Local Similarity 100.0%; Pred. No. 2.3e-168;
Matches 345; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
QY 1 TTTCGCTAGAAAAATCCCATGATAGACTGTGGCAAGACCTTGACACTGCTCCACT 60
DB 345 TTTCGCTAGAAAAATCCCATGATAGACTGTGGCAAGACCTTGACACTGCTCCACT 286
QY 61 CATGGAAGCTGGCTGATAGGCGATGGGAACTGATGATTCCTACTCCTGAAAAATAAAT 120
DB 285 CATGGAAGCTGGCTGATAGGCGATGGGAACTGATGATTCCTACTCCTGAAAAATAAAT 226
QY 121 CACCACTGTGATTAAGAAAGTTTTCAGGGTATAGACATTTGAAGAACCAAACTGCC 180
DB 225 CACCACTGTGATTAAGAAAGTTTTCAGGGTATAGACATTTGAAGAACCAAACTGCC 166
QY 181 CACGGGAGGCTGTGATTAACCTTTCGAAACCTGTCTTTAATAAAGAACATAGAG 240
DB 165 CACGGGAGGCTGTGATTAACCTTTCGAAACCTGTCTTTAATAAAGAACATAGAG 106
QY 241 CGCCAAAAAAGAGTGTGACGAGAAAGATGAGAGTGAACAAAGTCTAGACTACTG 300
DB 105 CGCCAAAAAAGAGTGTGACGAGAAAGATGAGAGTGAACAAAGTCTAGACTACTG 46
QY 301 CAAGTATTTCTTGTGTAATTAACACCGAGTGACACCGGAAAGT 345
DB 45 CAAGTATTTCTTGTGTAATTAACACCGAGTGACACCGGAAAGT 1
RESULT 3
AAZ55548
ID AAZ55548 standard; cDNA; 402 BP.
XX
AC AAZ55548;
XX
DT 14-MAR-2000 (first entry)
XX
DE Canine Interleukin-5 (IL-5) cDNA coding region.
XX
KM Interleukin-5; IL-5; antibody; canine; inhibitor; immune response;
KM immunoregulation; tumour; cancer; autoimmune disease; vaccine; 88.
XX
OS Canis familiaris.
XX
PN WO961618-A2.
XX
XX 02-DEC-1999.
XX

PF 28-MAY-1999; 99WO-US011942.
 XX
 PR 29-MAY-1998; 98US-0087306P.
 XX
 PA (HESK-) HESKA CORP.
 XX
 PI Sim G, Yang S, Dreitz MJ, Wonderling RS;
 XX
 DR WPI: 2000-072623/06.
 DR P-PSDB: AAY58219.
 XX
 PT Nucleic acids encoding immunoregulatory proteins from cats or dogs,
 PT useful for treating or preventing e.g. tumors or autoimmune disease.
 XX
 PS Claim 1h; Page 225; 264pp; English.
 XX
 CC Sequences AA255546-255551 represent cDNA sequences encoding canine
 CC interleukin-5 (IL-5). The invention relates to canine IL-4, canine or
 CC feline Flt-3 ligand, canine or feline CD40, canine or feline CD154 (CD40
 CC ligand), canine IL-5, canine IL-13, feline interferon-alpha (IFN-alpha)
 CC and feline granulocyte macrophage colony-stimulating factor (GM-CSF), and
 CC nucleotides which encode these immunoregulatory proteins. The proteins,
 CC their associated nucleic acids, specific antibodies and inhibitors may be
 CC used as vaccines for therapeutic or prophylactic regulation of an immune
 CC response in animals (particularly cats, dogs, horses and humans). They
 CC may be used to treat autoimmune or infectious diseases including
 CC allergies, tumors, inflammation and graft rejection, and to increase the
 CC response from a co-administered antigen. The nucleotide sequences can
 CC also be used for the recombinant production of a protein, while
 CC nucleotide fragments are useful as probes, as amplification primers and
 CC as sources of inhibitory therapeutics (e.g., antisense oligonucleotides).
 CC The proteins may be used to raise antibodies and to screen for modulators
 CC of activity, while the antibodies may be used in detection, and in drug
 CC targeting
 CC
 XX
 SQ Sequence 402 BP; 129 A; 79 C; 93 G; 101 T; 0 U; 0 Other;
 Query Match 100.0%; Score 345; DB 3; Length 402;
 Best Local Similarity 100.0%; Pred. No. 2,3e-168; Indels 0; Gaps 0;
 Matches 345; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 TTTCCTGTAGAAAATCCCATGAATAGACTGGTGCGAGAGACTTGACACTGCTCTCCACT 60
 DB 58 TTTCCTGTAGAAAATCCCATGAATAGACTGGTGCGAGAGACTTGACACTGCTCTCCACT 117
 QY 61 CATGGAACCTGGCTGATGCGGATGGGAACTGATGATTCCTACTCTGAAAATTAATAAT 120
 DB 118 CATGGAACCTGGCTGATGCGGATGGGAACTGATGATTCCTACTCTGAAAATTAATAAT 177
 QY 121 CACCAACTGTCATTAAAGAGTTTTCAGGGTATAGACATTTGAAGAACCAACTGCC 180
 DB 178 CACCAACTGTCATTAAAGAGTTTTCAGGGTATAGACATTTGAAGAACCAACTGCC 237
 QY 181 CACGGGAGGCTGTGATTAACCTATTCCTTAATTAAGAACACATAGAG 240
 DB 238 CACGGGAGGCTGTGATTAACCTATTCCTTAATTAAGAACACATAGAG 297
 QY 241 CGCCAAAAAAGAGTGTGCGAGAGAAAGATGAGAGAGTGAACAAAGTTCTTGAAGTACTG 300
 DB 298 CGCCAAAAAAGAGTGTGCGAGAGAAAGATGAGAGAGTGAACAAAGTTCTTGAAGTACTG 357
 QY 301 CAAATATTCTTGTGATTAACACGAGTGGACACCGGAAAGT 345
 DB 358 CAAATATTCTTGTGATTAACACGAGTGGACACCGGAAAGT 402

RESULT 4
 AA255549/C
 ID AA255549 standard: cDNA; 402 BP.
 AC AA255549;
 XX
 DT 14-MAR-2000 (first entry)

XX
 DE Canine interleukin-5 (IL-5) cDNA coding region complement.
 XX
 KW Interleukin-5; IL-5; antibody; canine; inhibitor; immune response;
 KW immunoregulation; tumour; cancer; autoimmune disease; vaccine; ss.
 XX
 OS Canis familiaris.
 XX
 PN WO9961618-A2.
 XX
 PD 02-DEC-1999.
 XX
 PF 28-MAY-1999; 99WO-US011942.
 XX
 PR 29-MAY-1998; 98US-0087306P.
 XX
 PA (HESK-) HESKA CORP.
 XX
 PI Sim G, Yang S, Dreitz MJ, Wonderling RS;
 XX
 DR WPI: 2000-072623/06.
 DR P-PSDB: AAY58219.
 XX
 PT Nucleic acids encoding immunoregulatory proteins from cats or dogs,
 PT useful for treating or preventing e.g. tumors or autoimmune disease.
 XX
 PS Claim 1h; Page 226; 264pp; English.
 XX
 CC Sequences AA255546-255551 represent cDNA sequences encoding canine
 CC interleukin-5 (IL-5). The invention relates to canine IL-4, canine or
 CC feline Flt-3 ligand, canine or feline CD40, canine or feline CD154 (CD40
 CC ligand), canine IL-5, canine IL-13, feline interferon-alpha (IFN-alpha)
 CC and feline granulocyte macrophage colony-stimulating factor (GM-CSF), and
 CC nucleotides which encode these immunoregulatory proteins. The proteins,
 CC their associated nucleic acids, specific antibodies and inhibitors may be
 CC used as vaccines for therapeutic or prophylactic regulation of an immune
 CC response in animals (particularly cats, dogs, horses and humans). They
 CC may be used to treat autoimmune or infectious diseases including
 CC allergies, tumors, inflammation and graft rejection, and to increase the
 CC response from a co-administered antigen. The nucleotide sequences can
 CC also be used for the recombinant production of a protein, while
 CC nucleotide fragments are useful as probes, as amplification primers and
 CC as sources of inhibitory therapeutics (e.g., antisense oligonucleotides).
 CC The proteins may be used to raise antibodies and to screen for modulators
 CC of activity, while the antibodies may be used in detection, and in drug
 CC targeting
 CC
 XX
 SQ Sequence 402 BP; 101 A; 93 C; 79 G; 129 T; 0 U; 0 Other;
 Query Match 100.0%; Score 345; DB 3; Length 402;
 Best Local Similarity 100.0%; Pred. No. 2,3e-168; Indels 0; Gaps 0;
 Matches 345; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 TTTCCTGTAGAAAATCCCATGAATAGACTGGTGCGAGAGACTTGACACTGCTCTCCACT 60
 DB 345 TTTCCTGTAGAAAATCCCATGAATAGACTGGTGCGAGAGACTTGACACTGCTCTCCACT 286
 QY 61 CATGGAACCTGGCTGATGCGGATGGGAACTGATGATTCCTACTCTGAAAATTAATAAT 120
 DB 285 CATGGAACCTGGCTGATGCGGATGGGAACTGATGATTCCTACTCTGAAAATTAATAAT 226
 QY 121 CACCAACTGTCATTAAAGAGTTTTCAGGGTATAGACATTTGAAGAACCAACTGCC 180
 DB 225 CACCAACTGTCATTAAAGAGTTTTCAGGGTATAGACATTTGAAGAACCAACTGCC 166
 QY 181 CACGGGAGGCTGTGATTAACCTATTCCTTAATTAAGAACACATAGAG 240
 DB 165 CACGGGAGGCTGTGATTAACCTATTCCTTAATTAAGAACACATAGAG 106
 QY 241 CGCCAAAAAAGAGTGTGCGAGAGAAAGATGAGAGAGTGAACAAAGTTCTTGAAGTACTG 300
 DB 105 CGCCAAAAAAGAGTGTGCGAGAGAAAGATGAGAGAGTGAACAAAGTTCTTGAAGTACTG 46

```

Qy      301 CAAATATTTCTTGCTGTAATTAACACCCGAGTGAACACCCGAAAGT 345
Db      45 CAAATATTTCTTGCTGTAATTAACACCCGAGTGAACACCCGAAAGT 1

RESULT 5
AA255546
ID      AA255546 standard; cDNA; 610 BP.
AC      AA255546;
XX
XX      14-MAR-2000 (first entry)
DT
XX
Db      Canine interleukin-5 (IL-5) cDNA.
XX
XX      Interleukin-5; IL-5; antibody; canine; inhibitor; immune response;
KM      immunoregulation; tumour; cancer; autoimmune disease; vaccine; ss.
XX
XX      Canis familiaris.
OS
XX
XX      Key      Location/Qualifiers
FT      CDS      29..433
FT      /tag= a
FT      /product= "Canine IL-5"

MO9961618-A2.
XX
XX      02-DEC-1999.
XX
XX      28-MAY-1999; 99WO-US011942.
XX
XX      29-MAY-1998; 98US-0087306P.
XX
XX      (HESK-) HESKA CORP.
XX
XX      Sim G, Yang S, Dreitz MJ, Wonderling RS;
PI
XX      WPI, 2000-072623/06.
DR      P-PSDB; AAY58219.
XX
XX      Nucleic acids encoding immunoregulatory proteins from cats or dogs,
PT      useful for treating or preventing e.g. tumors or autoimmune disease.
XX
XX      Claim 1b; Page 223-224; 264pp; English.
PS
XX
XX      Sequences AA255546-255551 represent cDNA sequences encoding canine
CC      interleukin-5 (IL-5). The invention relates to canine IL-4, canine or
CC      feline Flt-3 ligand, canine or feline CD40, canine or feline CD134 (CD40
CC      ligand), canine IL-5, canine IL-13, feline interferon-alpha (IFN-alpha)
CC      and feline granulocyte macrophage colony-stimulating factor (GM-CSF), and
CC      nucleotides which encode these immunoregulatory proteins. The proteins,
CC      their associated nucleic acids, specific antibodies and inhibitors may be
CC      used as vaccines for therapeutic or prophylactic regulation of an immune
CC      response in animals (particularly cats, dogs, horses and humans). They
CC      may be used to treat autoimmune or infectious diseases including
CC      allergies, tumors, inflammation and graft rejection, and to increase the
CC      response from a co-administered antigen. The nucleotide sequences can
CC      also be used for the recombinant production of a protein, while
CC      nucleotide fragments are useful as probes, as amplification primers and
CC      as sources of inhibitory therapeutics (e.g., antisense oligonucleotides).
CC      The proteins may be used to raise antibodies and to screen for modulators
CC      of activity, while the antibodies may be used in detection, and in drug
CC      targeting.
XX
XX      Sequence 610 BP; 202 A; 114 C; 139 G; 155 T; 0 U; 0 Other;
SQ
XX
XX      Query Match      100.0%; Score 345; DB 3; Length 610;
XX      Best Local Similarity 100.0%; Pred. No. 2,3e-168;
XX      Matches 345; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
Qy      1 TTGCTGTAGAAATCCCATGATAGACTGTGACAGACCTTGACACGCTCTCCACT 60
Db      86 TTGCTGTAGAAATCCCATGATAGACTGTGACAGACCTTGACACGCTCTCTCCACT 145

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Qy      61 CATGCACTTGCTGCTGATAGCGATGGGAACTGATGATTCCTACTCCTGAAAAAT 120
Db      146 CATGCAACTTGCTGCTGATAGCGATGGGAACTGATGATTCCTACTCCTGAAAAAT 205
Qy      121 CACCAACTGCTGCACTTAAGAAAGTTTTCAGGGATATAGACACTTGAAGAAACCAACTGCC 180
Db      206 CACCAACTGCTGCACTTAAGAAAGTTTTCAGGGATATAGACACTTGAAGAAACCAACTGCC 265
Qy      181 CACGGAGAGGCTGTGATTAACCTATTCCAAAGCTGTGCTTTTAATTAAGAAACATAGAG 240
Db      266 CACGGAGAGGCTGTGATTAACCTATTCCAAAGCTGTGCTTTTAATTAAGAAACATAGAG 325
Qy      241 CGCCAAAAAAGGCTGTGACAGAGAAAGATGAGAGTGAACAAAGTTCTAGACTACTG 300
Db      326 CGCCAAAAAAGGCTGTGACAGAGAAAGATGAGAGTGAACAAAGTTCTAGACTACTG 365
Qy      301 CAAATATTTCTTGCTGTAATTAACACCCGAGTGAACACCCGAAAGT 345
Db      386 CAAATATTTCTTGCTGTAATTAACACCCGAGTGAACACCCGAAAGT 430

RESULT 6
AA255547/c
ID      AA255547 standard; cDNA; 610 BP.
XX
XX      AA255547;
AC
XX
XX      14-MAR-2000 (first entry)
DT
XX
XX      Canine interleukin-5 (IL-5) cDNA complement.
DE
XX
XX      Interleukin-5; IL-5; antibody; canine; inhibitor; immune response;
KM      immunoregulation; tumour; cancer; autoimmune disease; vaccine; ss.
XX
XX      Canis familiaris.
OS
XX
XX      Key      Location/Qualifiers
FT      CDS      complement (178..582)
FT      /tag= a
FT      /product= "Canine IL-5"

MO9961618-A2.
XX
XX      02-DEC-1999.
XX
XX      28-MAY-1999; 99WO-US011942.
XX
XX      29-MAY-1998; 98US-0087306P.
XX
XX      (HESK-) HESKA CORP.
XX
XX      Sim G, Yang S, Dreitz MJ, Wonderling RS;
PI
XX      WPI, 2000-072623/06.
DR      P-PSDB; AAY58219.
XX
XX      Nucleic acids encoding immunoregulatory proteins from cats or dogs,
PT      useful for treating or preventing e.g. tumors or autoimmune disease.
XX
XX      Claim 1b; Page 224-225; 264pp; English.
PS
XX
XX      Sequences AA255546-255551 represent cDNA sequences encoding canine
CC      interleukin-5 (IL-5). The invention relates to canine IL-4, canine or
CC      feline Flt-3 ligand, canine or feline CD40, canine or feline CD134 (CD40
CC      ligand), canine IL-5, canine IL-13, feline interferon-alpha (IFN-alpha)
CC      and feline granulocyte macrophage colony-stimulating factor (GM-CSF), and
CC      nucleotides which encode these immunoregulatory proteins. The proteins,
CC      their associated nucleic acids, specific antibodies and inhibitors may be
CC      used as vaccines for therapeutic or prophylactic regulation of an immune
CC      response in animals (particularly cats, dogs, horses and humans). They
CC      may be used to treat autoimmune or infectious diseases including
CC      allergies, tumors, inflammation and graft rejection, and to increase the

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CC response from a co-administered antigen. The nucleotide sequences can
CC also be used for the recombinant production of a protein, while
CC nucleotide fragments are useful as probes, as amplification primers and
CC as sources of inhibitory therapeutics (e.g., antisense oligonucleotides).
CC The proteins may be used to raise antibodies and to screen for modulators
CC of activity, while the antibodies may be used in detection, and in drug
CC targeting

XX Sequence 610 BP; 155 A; 139 C; 114 G; 202 T; 0 U; 0 Other;

Query Match 100.0%; Score 345; DB 3; Length 610;
Best Local Similarity 100.0%; Pred. No. 2,3e-168;

Matches 345; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

```
Oy 1 TTTCCTGAGAAATCCCATGATAGACTGGTGGCAGACCTTGACACTGCTCCACT 60
    |||
Db 525 TTTCCTGAGAAATCCCATGATAGACTGGTGGCAGACCTTGACACTGCTCCACT 466
Oy 61 CATGGAACCTGGCTGATAGGCGATGGAACTGATGATTCCTACTCTGAAATATTAAT 120
    |||
Db 465 CATGGAACCTGGCTGATAGGCGATGGAACTGATGATTCCTACTCTGAAATATTAAT 406
Oy 121 CACCACTGTGCATTAAGAAAGTTTTCAGGGTATAGACATTTGAGAACCAACTGCC 180
    |||
Db 405 CACCACTGTGCATTAAGAAAGTTTTCAGGGTATAGACATTTGAGAACCAACTGCC 346
Oy 181 CACGGGAGGCTGTGATTAACATATTCGAAACTTGTCTTAATTAAGAACACATAGAG 240
    |||
Db 345 CACGGGAGGCTGTGATTAACATATTCGAAACTTGTCTTAATTAAGAACACATAGAG 286
Oy 241 CGCCAAAAAAGGTGTGACAGAGAAAGATGAGAGTGAACAAAGTTCTAGACTGCTG 300
    |||
Db 285 CGCCAAAAAAGGTGTGACAGAGAAAGATGAGAGTGAACAAAGTTCTAGACTGCTG 226
Oy 301 CAAATATTTCTTGTGTATTAATTAACACCGAGTGAACCGGAAAGT 345
    |||
Db 225 CAAATATTTCTTGTGTATTAATTAACACCGAGTGAACCGGAAAGT 181
```

RESULT 7

AAFT4300
ID AAF74300 standard; DNA; 405 BP.

XX AAF74300;

XX AC AAF74300;

XX DT 04-MAY-2001 (first entry)

XX DE Canine interleukin-5 coding sequence #1.

XX KM Dog; interleukin-5; IL-5; allergy; cancer; gene therapy;

XX OS inflammatory reaction; ds.

XX OS Canis sp.

XX OS WO200111049-A2.

XX PD 15-FEB-2001.

XX PF 09-AUG-2000; 2000WO-US021651.

XX PR 10-AUG-1999; 99US-00371615.

XX PA (IDEX-) IDEXX LAB INC.

XX PI Guo H, Lawton R, Mermer B, Aiyappa AP;

XX DR WPI; 2001-191542/19.

XX DR P-PSDB; AAB72615.

XX FT Novel canine interleukin 5 polynucleotide and polypeptides are used for

XX PS generating antibodies which are useful in treating allergies in dogs.

XX The present invention provides the protein and coding sequences of the
CC canine interleukin-5 (IL-5) protein. This can be used to treat allergies,
CC cancer and inflammatory reactions in dogs. The present sequence is one
CC version of the IL-5 coding sequence shown in the specification

XX Sequence 405 BP; 131 A; 77 C; 94 G; 103 T; 0 U; 0 Other;

Query Match 97.4%; Score 336; DB 4; Length 405;
Best Local Similarity 100.0%; Pred. No. 1.1e-163;

Matches 336; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

```
Oy 1 TTTCCTGAGAAATCCCATGATAGACTGGTGGCAGACCTTGACACTGCTCCACT 60
    |||
Db 58 TTTCCTGAGAAATCCCATGATAGACTGGTGGCAGACCTTGACACTGCTCCACT 117
Oy 61 CATGGAACCTGGCTGATAGGCGATGGAACTGATGATTCCTACTCTGAAATATTAAT 120
    |||
Db 118 CATGGAACCTGGCTGATAGGCGATGGAACTGATGATTCCTACTCTGAAATATTAAT 177
Oy 121 CACCACTGTGCATTAAGAAAGTTTTCAGGGTATAGACATTTGAGAACCAACTGCC 180
    |||
Db 178 CACCACTGTGCATTAAGAAAGTTTTCAGGGTATAGACATTTGAGAACCAACTGCC 237
Oy 181 CACGGGAGGCTGTGATTAACATATTCGAAACTTGTCTTAATTAAGAACACATAGAG 240
    |||
Db 238 CACGGGAGGCTGTGATTAACATATTCGAAACTTGTCTTAATTAAGAACACATAGAG 297
Oy 241 CGCCAAAAAAGGTGTGACAGAGAAAGATGAGAGTGAACAAAGTTCTAGACTGCTG 300
    |||
Db 298 CGCCAAAAAAGGTGTGACAGAGAAAGATGAGAGTGAACAAAGTTCTAGACTGCTG 357
Oy 301 CAAATATTTCTTGTGTATTAATTAACACCGAGTGAACCGGAAAGT 336
    |||
Db 358 CAAATATTTCTTGTGTATTAATTAACACCGAGTGAACCGGAAAGT 393
```

RESULT 8

AAFT4306
ID AAF74306 standard; DNA; 393 BP.

XX AAF74306;

XX AC AAF74306;

XX DT 04-MAY-2001 (first entry)

XX DE Canine interleukin-5 coding sequence #3.

XX KM Dog; interleukin-5; IL-5; allergy; cancer; gene therapy;

XX OS inflammatory reaction; ds.

XX OS Canis sp.

XX OS WO200111049-A2.

XX PD 15-FEB-2001.

XX PF 09-AUG-2000; 2000WO-US021651.

XX PR 10-AUG-1999; 99US-00371615.

XX PA (IDEX-) IDEXX LAB INC.

XX PI Guo H, Lawton R, Mermer B, Aiyappa AP;

XX DR WPI; 2001-191542/19.

XX DR Novel canine interleukin 5 polynucleotide and polypeptides are used for

XX PS generating antibodies which are useful in treating allergies in dogs.

XX PS Claim 1; Page 35; 48pp; English.

XX The present invention provides the protein and coding sequences of the

XX canine interleukin-5 (IL-5) protein. This can be used to treat allergies,

CC cancer and inflammatory reactions in dogs. The present sequence is one
CC version of the IL-5 coding sequence shown in the specification
XX
SQ Sequence 393 BP; 128 A; 82 C; 86 G; 97 T; 0 U; 0 Other;

Query Match 78.3%; Score 270; DB 4; Length 393;
Best Local Similarity 100.0%; Pred. No. 1.8e-129;
Matches 270; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 46 ACACGTGCTCCACTCATGCACTTGCTGATAGGCGATGGAACCTGATGATCTCACT 105
DB 1 ACACGTGCTCCACTCATGCACTTGCTGATAGGCGATGGAACCTGATGATCTCACT 60
QY 106 CCGTAAATTAATAATCAACAAGTGTGATTAAGAAAGTTTTCAGGGTATAGACATTTG 165
DB 61 CCGTAAATTAATAATCAACAAGTGTGATTAAGAAAGTTTTCAGGGTATAGACATTTG 120
QY 166 AAGAACCAAACTGCGCCAGGGGAGGCTGTGATTAATCTATTCAAAACTGTCTTAATA 225
DB 121 AAGAACCAAACTGCGCCAGGGGAGGCTGTGATTAATCTATTCAAAACTGTCTTAATA 180
QY 226 AAGAACCAAACTGCGCCAGGGGAGGCTGTGATTAATCTATTCAAAACTGTCTTAATA 285
DB 181 AAGAACCAAACTGCGCCAGGGGAGGCTGTGATTAATCTATTCAAAACTGTCTTAATA 240
QY 286 TTCTAGACTACCTGCAAGTATTTCTTGGT 315
DB 241 TTCTAGACTACCTGCAAGTATTTCTTGGT 270

RESULT 9

AAF74305
ID AAF74305 standard; DNA; 252 BP.

XX
AC AAF74305;

DT 04-MAY-2001 (first entry)

XX
DE Canine Interleukin-5 coding sequence #2.

XX
KM Dog; interleukin-5; IL-5; allergy; cancer; gene therapy;

XX
KM Inflammatory reaction; ds.

XX
OS Canis sp.

XX
PN MO20011049-A2.

XX
PD 15-FEB-2001.

XX
PF 09-AUG-2000; 2000MO-US021651.

XX
PR 10-AUG-1999; 99US-00371615.

XX
PA (IDEX-) IDEXX LAB INC.

XX
PI Guo H, Lawton R, Merzner B, Aiyappa AP;

XX
DR WPI; 2001-191542/19.

XX
DR P-PSDB; AAB72616.

XX
PT Novel canine interleukin 5 polynucleotide and polypeptides are used for

XX
PS generating antibodies which are useful in treating allergies in dogs.

XX
XX Example 1; Fig 1; 48pp; English.

CC The present invention provides the protein and coding sequences of the
CC canine interleukin-5 (IL-5) protein. This can be used to treat allergies,
CC cancer and inflammatory reactions in dogs. The present sequence is one
CC version of the IL-5 coding sequence shown in the specification
XX

SQ Sequence 252 BP; 69 A; 54 C; 60 G; 69 T; 0 U; 0 Other;

Query Match 56.5%; Score 195; DB 4; Length 252;

Best Local Similarity 100.0%; Pred. No. 1.4e-90;
Matches 195; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 TTGCTGTGAAATCCATGATATAGCTGTGCGAGAGCTTGACACTGCTCTCACT 60
DB 58 TTGCTGTGAAATCCATGATATAGCTGTGCGAGAGCTTGACACTGCTCTCACT 117
QY 61 CATGGAACCTTGCTGATAGCGCATGGAACCTGATATCTCACTCTGAAAAATAAAT 120
DB 118 CATGGAACCTTGCTGATAGCGCATGGAACCTGATATCTCACTCTGAAAAATAAAT 177
QY 121 CACCAACTGTGCTTAAAGAGTTTTCAGGGTATAGACACATTTGAAGAACCAACTGCC 180
DB 178 CACCAACTGTGCTTAAAGAGTTTTCAGGGTATAGACACATTTGAAGAACCAACTGCC 237
QY 181 CACGGGAGGCTGTG 195
DB 238 CACGGGAGGCTGTG 252

RESULT 10

AAT50756
ID AAT50756 standard; cDNA; 399 BP.

XX
AC AAT50756;

DT 17-OCT-2003 (revised)

DT 24-SEP-1997 (first entry)

XX
DE Ovine IL-5 cDNA.

XX
XX Cytokine; ovine; sheep; interleukin-5; interleukin-12; IL-5; IL-12;

XX
KM livestock; cow; stress; transport; vaccine adjuvant; veterinary; cancer;

XX
KM immunosuppression; allergy; reproductive system; growth; early maturity;

XX
KM antibody; diagnosis; immunopotentiator;

XX
KM early haematopoietic progenitor cell; cytotoxic cell; thymocyte;

XX
KM secretion; IGM; IGA; bacterial endotoxin; gamma-interferon; ss.

XX
OS Ovis aries.

XX
PN MO9700321-A1.

XX
PD 03-JAN-1997.

XX
PF 14-JUN-1996; 96MO-AU000360.

XX
PR 14-JUN-1995; 95AU-00003502.

XX
PR 27-OCT-1995; 95AU-00006244.

XX
PA (CSIR) COMMONWEALTH SCI & IND RES ORG.

XX
PI Seow H, Wood P;

XX
DR WPI; 1997-077528/07.

XX
DR P-PSDB; AAM08479.

XX
PT Nucleic acid encoding ovine interleukin-5 or -12 - used as vaccine

XX
PS adjuvants and to treat or prevent microbial infections in livestock.

XX
XX Claim 6; Page 41-42; 78pp; English.

CC The sequences given in AAT50755-56 encode ovine interleukin-5 (IL-5).
CC Ovine IL-5 or IL-12 are used to treat and/or prevent infections in
CC livestock (esp. cows and sheep), particularly where the animals are
CC stressed, e.g. during transport. IL-5 and IL-12 can also be used as
CC adjuvants in vaccines for veterinary use (partic. weakly immunogenic
CC subunit or synthetic peptide vaccines). They may also be used to treat
CC cancer, immunosuppression and allergy, to enhance/suppress the
CC reproductive system and to promote growth or early maturity. Optionally
CC interleukin can be delivered from constructs or delivery cells and
CC antibodies are useful in enzyme immunoassays for rapid diagnosis of
CC infection. The interleukins are immunopotentiators, especially IL-5
CC promotes growth of early haematopoietic progenitor cells and generation

CC of cytotoxic cells from thymocytes, also it stimulates production and
 CC secretion of IgM and IgA (in synergism with bacterial endotoxin). IL-12
 CC induces production of gamma-interferon by, and proliferation of, T and NK
 CC cells and increases the (non-)specific cytolytic lymphocyte response. The
 CC genetic constructs can also be used for in vitro production of IL-5 or -
 CC 12. (Updated on 17-OCT-2003 to standardise OS field)

XX Sequence 399 BP; 130 A; 77 C; 93 G; 99 T; 0 U; 0 Other;
 SQ

Query Match 12.5%; Score 43; DB 2; Length 399;
 Best Local Similarity 100.0%; Pred. No. 9.2e-12;
 Matches 43; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 17 CCATGATAGACTGGTGGCAGAGACCTTGACACTGCTCTCCAC 59
 Db 68 CCATGATAGACTGGTGGCAGAGACCTTGACACTGCTCTCCAC 110

RESULT 11
 AAT50755
 ID AAT50755 standard; DNA; 520 BP.
 XX
 AC AAT50755;
 XX
 DT 17-OCT-2003 (revised)
 DT 24-SEP-1997 (first entry)
 XX
 DE Ovine IL-5 gene.
 XX
 KM Cytokine; ovine; sheep; interleukin-5; interleukin-12; IL-5; IL-12;
 KM livestock; cow; stress; transport; vaccine adjuvant; veterinary; cancer;
 KM immunosuppression; allergy; reproductive system; growth; early maturity;
 KM antibody; diagnosis; immunopotentiator;
 KM early haematopoietic progenitor cell; cytotoxic cell; thymocyte;
 KM secretion; IgM; IgA; bacterial endotoxin; gamma-interferon; ss.
 XX
 OS Ovis aries.
 XX
 FH Key Location/Qualifiers
 FT CDS 46..444
 FT /*tag= a
 FT /product= "Ovine_IL-5"
 FT 46..183
 FT /*tag= b
 FT /number= 1
 FT exon 184..216
 FT /*tag= c
 FT /number= 2
 FT exon 217..345
 FT /*tag= d
 FT /number= 3
 FT exon 346..480
 FT /*tag= e
 FT /number= 4
 XX
 PN M09700321-A1.
 XX
 PD 03-JAN-1997.
 XX
 PF 14-JUN-1996; 96WO-AU000360.
 XX
 PR 14-JUN-1995; 95AU-00003502.
 PR 27-OCT-1995; 95AU-00006244.
 XX
 PA (CSIR) COMMONWEALTH SCI & IND RES ORG.
 XX
 PI Seow H, Wood P;
 XX
 DR WPI; 1997-077528/07.
 XX
 DR P-PSDB; AAW08479.
 XX
 PT Nucleic acid encoding ovine interleukin-5 or -12 - used as vaccine
 PT adjuvants and to treat or prevent microbial infections in livestock.

XX Claim 6; Page 39-40; 78pp; English.
 XX
 PS The sequences given in AAT50755-56 encode ovine interleukin-5 (IL-5).
 CC Ovine IL-5 or IL-12 are used to treat and/or prevent infections in
 CC livestock (esp. cows and sheep), particularly where the animals are
 CC stressed, e.g. during transport. IL-5 and IL-12 can also be used as
 CC adjuvants in vaccines for veterinary use (partic. weakly immunogenic
 CC subunit or synthetic peptide vaccines). They may also be used to treat
 CC cancer, immunosuppression and allergy, to enhance/suppress the
 CC reproductive system and to promote growth or early maturity. Optionally
 CC interleukin can be delivered from constructs or delivery cells and
 CC antibodies are useful in enzyme immunoassays for rapid diagnosis of
 CC infection. The interleukins are immunopotentiators, especially IL-5
 CC promotes growth of early haematopoietic progenitor cells and generation
 CC of cytotoxic cells from thymocytes, also it stimulates production and
 CC secretion of IgM and IgA (in synergism with bacterial endotoxin). IL-12
 CC induces production of gamma-interferon by, and proliferation of, T and NK
 CC cells and increases the (non-)specific cytolytic lymphocyte response. The
 CC genetic constructs can also be used for in vitro production of IL-5 or -
 CC 12. (Updated on 17-OCT-2003 to standardise OS field)

XX Sequence 520 BP; 166 A; 99 C; 124 G; 131 T; 0 U; 0 Other;
 SQ

Query Match 12.5%; Score 43; DB 2; Length 520;
 Best Local Similarity 100.0%; Pred. No. 9.3e-12;
 Matches 43; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 17 CCATGATAGACTGGTGGCAGAGACCTTGACACTGCTCTCCAC 59
 Db 113 CCATGATAGACTGGTGGCAGAGACCTTGACACTGCTCTCCAC 155

RESULT 12
 AA244265
 ID AA244265 standard; DNA; 838 BP.
 XX
 AC AA244265;
 XX
 DT 31-MAR-2000 (first entry)
 XX
 DE Porcine IL-5 DNA.
 XX
 KM Pig; vaccine; cysticercosis; protective antigen; cCl; cC3; cC4;
 KM tenial cysticercus; gamma interferon; IFN-gamma; interleukin 5; IL-5; ss.
 XX
 OS Sus scrofa.
 XX
 PN CN1231339-A.
 XX
 PD 13-OCT-1999.
 XX
 PF 29-JAN-1999; 99CN-00113447.
 XX
 PR 29-JAN-1999; 99CN-00113447.
 XX
 PA (UITW-) UNIV NO 2 MILITARY MEDICAL PLA.
 XX
 PI Sun S, Dai J;
 XX
 DR WPI; 2000-087904/08.
 XX
 PT Nucleic acid vaccine for cysticercosis co-contracted by human and pig.
 XX
 PS Claim 3; Page 9; 21pp; Chinese.
 XX
 CC This invention describes a novel nucleic acid vaccine for preventing and
 CC curing human and pork cysticercosis. The invention involves the formation
 CC of a eukaryotic expression plasmid from fusion transcript expression unit
 CC consisting of three protective antigen genes (CC1, CC3 and CC4) of pig
 CC tenial cysticercus and coexpression unit of related cell factor gamma
 CC interferon (IFN-gamma) and pork interleukin 5 (IL-5) genes. The
 CC production and purification process of said nucleic acid vaccine is

CC simple and convenient, the physical and chemical properties of the
CC vaccine are stable, and the vaccine is easy to store and transport, and
CC possesses effective immunological protective function for human and pig
CC cysticercosis. This sequence represents the pig IL-5 gene used in the
CC method of the invention
XX
SQ Sequence 838 BP; 280 A; 148 C; 171 G; 239 T; 0 U; 0 Other;
Query Match 8.7%; Score 30; DB 3; Length 838;
Best Local Similarity 100.0%; Pred. No. 5.2e-05;
Matches 30; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
QY 210 AACTGTCTTTTAAATAAGACATAGA 239
DB 311 AACTGTCTTTTAAATAAGACATAGA 340
RESULT 13
ABX75427
ID ABX75427 standard; DNA; 26 BP.
XX
AC ABX75427;
XX
DT 25-MAR-2003 (first entry)
XX
DE Human interleukin 5 forward RT-PCR primer.
XX
KM CNS; conserved non-coding region; ss; cytokine; interleukin 4; IL-4;
KM interleukin 5; IL-5; interleukin 13; IL-13; chromosome 5q31; LCR;
KM locus control region; interleukin gene cluster; transcription factor;
KM transgenic; PCR; primer; RT-PCR; reverse transcriptase PCR; human.
XX
OS Homo sapiens.
XX
PN US2002132290-A1.
XX
PD 19-SEP-2002.
XX
PF 20-FEB-2001; 2001US-00789529.
XX
PR 18-FEB-2000; 2000US-0183657P.
XX
PA (FRAZ/) FRAZER K A.
PA (RUBI/) RUBIN E M.
PA (LOOT/) LOOTS G G.
XX
PI Frazer KA, Rubin EM, Loots GG;
DR WPI; 2003-165733/16.
XX
PT Novel isolated nucleic acids which are locus control region elements in
PT interleukin gene cluster region of chromosome, referred as conserved non-
PT coding sequences, useful for modulating expression of cytokine genes.
XX
XX
XX Example 4; Page 23; 48pp; English.
XX
XX The invention relates to an isolated nucleic acid molecule comprising a
XX length of about 100 nucleotides or less, which has a sequence at least
XX about 70% identical to the human conserved non-coding sequence (CNS)-1
XX sequence (a locus control region (LCR) element in interleukin gene
XX cluster region of chromosome 5q31 containing interleukin (IL) 4, IL5 and
XX IL 13). Optionally, the nucleic acid has 70% identity to a human CNS-2 to
XX CNS-16 or mouse CNS-1 to CNS-16 or their complements. Also included are:
XX (1) an expression cassette comprising a CNS-1 sequence operably linked to
XX a promoter which controls transcription of a heterologous coding sequence
XX; (2) an expression cassette consisting essentially of an IL-4 gene, an
XX IL-13 gene and a CNS-1 sequence; (3) an expression cassette comprising an
XX IL-4 gene, an IL-13 gene, and a CNS-1 sequence flanked between two
XX recombination site sequences; (4) an expression cassette comprising an IL
XX -4 gene and an IL-13 gene and lacking a CNS-1 sequence; (5) a T cell
XX comprising one of the expression cassettes; (6) a non-human transgenic
XX animal comprising one of the expression cassettes or the T-cell; and (7)
XX a non-human transgenic animal where a CNS-1 sequence is deleted from its

CC chromosome. The T cell is useful for identifying a compound that
CC modulates binding of a transcription factor to a CNS-1 sequence which
CC involves contacting the compound with the T cell and determining the
CC functional effect of the compound on binding of the transcription factor
CC to the CNS-1 sequence. The compound is an antisense sequence of the CNS
CC sequence, an antibody against the transcription factor, or a small
CC compound. The nucleic acid is useful for modulating expression of 1 or
CC more cytokine genes and has a diagnostic tool to screen patients having
CC disease related to cytokine gene expression. The expression cassette is
CC useful for identifying compounds that modulate functions of CNS sequence
CC is on cytokine gene expression. Expression cassettes with and without CNS
CC -1 are useful for making two lines of non-human transgenic animals that
CC are identical except one line has the CNS-1 sequence and the other line
CC lacks the CNS-1 sequence. The transgenic animals are useful as in vivo
CC models for various therapeutic modalities. The present sequence is a
CC reverse transcriptase (RT)-PCR primer used to monitor the effects of CNS-
CC 1 on cytokine expression in a transgenic mouse strain which has the gene
CC cluster from chromosome 5q31 with and without CNS-1
XX
SQ Sequence 26 BP; 12 A; 6 C; 3 G; 5 T; 0 U; 0 Other;
Query Match 6.1%; Score 21; DB 8; Length 26;
Best Local Similarity 100.0%; Pred. No. 2.2; 0; Indels 0; Gaps 0;
Matches 21; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
QY 113 ATAAATATCACAACCTGTGCA 133
DB 1 ATAAATATCACAACCTGTGCA 21
RESULT 14
AAZ55591
ID AAZ55591 standard; DNA; 36 BP.
XX
AC AAZ55591;
XX
DT 14-MAR-2000 (first entry)
XX
DE Canine IL-5 sense PCR primer, SEQ ID NO:137.
XX
XX
KM Interleukin; IL-4; IL-5; IL-13; Flt-3 ligand; CD40; CD40 ligand; CD154;
KM interferon-alpha; IFN-alpha; GM-CSF; antibody; canine; feline;
KM granulocyte macrophage colony-stimulating factor; inhibitor;
KM immune response; immunoregulation; tumour; cancer; autoimmune disease;
KM vaccine; PCR; primer; ss.
XX
OS Synthetic.
OS Canis familiaris.
XX
PN WO9961618-A2.
XX
PD 02-DEC-1999.
XX
PF 28-MAY-1999; 99WO-US011942.
XX
PR 29-MAY-1998; 98US-0087306P.
XX
PA (HESK-) HESKA CORP.
XX
PI Sim G, Yang S, Dreltz MJ, Wonderling RS;
DR WPI; 2000-072623/06.
XX
PT Nucleic acids encoding immunoregulatory proteins from cats or dogs,
PT useful for treating or preventing e.g. tumors or autoimmune disease.
XX
XX Example 5B; Page 107; 264pp; English.
XX
XX The invention relates to canine interleukin-4 (IL-4), canine or feline
XX Flt-3 ligand, canine or feline CD40, canine or feline CD154 (CD40
XX ligand), canine IL-5, canine IL-13, feline interferon-alpha (IFN-alpha)
XX and feline granulocyte macrophage colony-stimulating factor (GM-CSF), and
XX nucleotides which encode these immunoregulatory proteins. The proteins,

CC their associated nucleic acids, specific antibodies and inhibitors may be
 CC used as vaccines for therapeutic or prophylactic regulation of an immune
 CC response in animals (particularly cats, dogs, horses and humans). They
 CC may be used to treat autoimmune or infectious diseases including
 CC allergies, tumours, inflammation and graft rejection, and to increase the
 CC response from a co-administered antigen. The nucleotide sequences can
 CC also be used for the recombinant production of a protein, while
 CC nucleotide fragments are useful as probes, as amplification primers and
 CC as sources of inhibitory therapeutics (e.g., antisense oligonucleotides).
 CC The proteins may be used to raise antibodies and to screen for modulators
 CC of activity, while the antibodies may be used in detection, and in drug
 CC targeting. Sequences AA255491-255498, AA255513-255515 and AA255581-
 CC 255608 represent PCR primers used in isolation, amplification and cloning
 CC of cDNAs encoding the immunoregulatory proteins of the invention
 XX
 SQ Sequence 36 BP; 12 A; 6 C; 10 G; 8 T; 0 U; 0 Other;

Query Match 6.1%; Score 21; DB 3; Length 36;
 Best Local Similarity 100.0%; Pred. No. 2.3;
 Matches 21; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

OY 1 TTGGCTGAGAAATCCCATG 21
 |||||
 DB 16 TTGGCTGAGAAATCCCATG 36

RESULT 15

AA91647
 ID AA91647 standard; DNA; 370 BP.

AC AA91647;

DT 25-MAR-2003 (revised)
 DT 21-MAR-1990 (first entry)

DE Synthetic interleukin-5 gene.

XX Growth factor.

XX Homo sapiens.

XX Key Location/Qualifiers
 FT 14..352
 FT CDS /*tag= a

PN GB2217328-A.

XX 25-OCT-1989.

PD 12-APR-1988; 88GB-00008524.

XX 12-APR-1988; 88GB-00008524.

XX (BRBI-) BRITISH BIO-TECHN L.

XX Edwards RW;

XX WPI; 1989-311767/43.

DR P-PSDB; AAP93152.

XX Synthetic gene encoding human interleukin-5 - has restriction sites at
 PT frequent intervals to facilitate manipulation.

XX Claim 1; Fig 3a; 21pp; English.

XX Has sites for HindIII, BspMI, NcoI, SpeI, BspMI, ApaLI, XbaI, XhoI ClaI,
 CC BclI, PstI, DraIII, BamHI and EcoRI. It acts as a B cell growth and
 CC differentiation factor. (Updated on 25-MAR-2003 to correct PA field.)

XX Sequence 370 BP; 126 A; 73 C; 82 G; 89 T; 0 U; 0 Other;

Query Match 6.1%; Score 21; DB 1; Length 370;
 Best Local Similarity 100.0%; Pred. No. 2.4;

Matches 21; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
 OY 113 ATAAATCACAACCTGTGCA 133
 |||||
 DB 120 ATAAATCACAACCTGTGCA 140

Search completed: August 8, 2005, 16:37:40
 Job time : 232.259 secs

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Qy 1 TTGCTGTAGAAAATCCCATGATAGACTGTGTGCGAGAGACCTTGACACTGCTCTCCACT 60
Db 345 TTGCTGTAGAAAATCCCATGATAGACTGTGTGCGAGAGACCTTGACACTGCTCTCCACT 286
Qy 61 CATGAACCTGTGCTGATAGGCGATGGGAACCTGATGATCTTCTACTCTCGAAAATTAATAAT 120
Db 285 CATGAACCTGTGCTGATAGGCGATGGGAACCTGATGATCTTCTACTCTCGAAAATTAATAAT 226
Qy 121 CACCAACTGTGCATTAAGAAGTTTTCAGGGTATAGACATTTGAAGAACCAAACTGCC 180
Db 225 CACCAACTGTGCATTAAGAAGTTTTCAGGGTATAGACATTTGAAGAACCAAACTGCC 166
Qy 181 CACGGGAGGCTGTGATTAACCTATTCCTTTAATTAAGAAACACATAGAG 240
Db 165 CACGGGAGGCTGTGATTAACCTATTCCTTTAATTAAGAAACACATAGAG 106
Qy 241 CGCCAAAAAAGAGTGTGCGAGAGAAAGATGAGAGTGAACAAAGTTCTAGACTACTG 300
Db 105 CGCCAAAAAAGAGTGTGCGAGAGAAAGATGAGAGTGAACAAAGTTCTAGACTACTG 46
Qy 301 CAAGTATTTCTTGCTGTATTAACACGAGTGAACCGGAAGT 345
Db 45 CAAGTATTTCTTGCTGTATTAACACGAGTGAACCGGAAGT 1

RESULT 5
US-09-322-409-83
; Sequence 83, Application US/09322409
; Patent No. 6471957
; GENERAL INFORMATION:
; APPLICANT: Sim, Gek-kee
; APPLICANT: Yang, Shumin
; APPLICANT: Drelitz, Matthew J.
; APPLICANT: Wonderling, Ramani S.
; TITLE OF INVENTION: CANINE AND FELINE IMMUNOREGULATORY PROTEINS, NUCLEIC
; FILE REFERENCE: IM-2-C1
; CURRENT APPLICATION NUMBER: US/09/322,409
; EARLIER FILING DATE: 1999-05-28
; EARLIER APPLICATION NUMBER: 60/087,306
; NUMBER OF SEQ ID NOS: 154
; SOFTWARE: PatentIn Ver. 2.0
; SEQ ID NO 83
; LENGTH: 402
; TYPE: DNA
; ORGANISM: Canis familiaris
US-09-322-409-83

Query Match 100.0%; Score 345; DB 4; Length 402;
Best Local Similarity 100.0%; Pred. No. 1,2e-162;
Matches 345; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
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Qy 301 CAAGTATTTCTTGCTGTATTAACACGAGTGAACCGGAAGT 345
Db 358 CAAGTATTTCTTGCTGTATTAACACGAGTGAACCGGAAGT 402

RESULT 6
US-09-322-409-84/c
; Sequence 84, Application US/09322409
; Patent No. 6471957
; GENERAL INFORMATION:
; APPLICANT: Sim, Gek-kee
; APPLICANT: Yang, Shumin
; APPLICANT: Drelitz, Matthew J.
; APPLICANT: Wonderling, Ramani S.
; TITLE OF INVENTION: CANINE AND FELINE IMMUNOREGULATORY PROTEINS, NUCLEIC
; FILE REFERENCE: IM-2-C1
; CURRENT APPLICATION NUMBER: US/09/322,409
; EARLIER FILING DATE: 1999-05-28
; EARLIER APPLICATION NUMBER: 60/087,306
; NUMBER OF SEQ ID NOS: 154
; SOFTWARE: PatentIn Ver. 2.0
; SEQ ID NO 84
; LENGTH: 402
; TYPE: DNA
; ORGANISM: Canis familiaris
US-09-322-409-84

Query Match 100.0%; Score 345; DB 4; Length 402;
Best Local Similarity 100.0%; Pred. No. 1,2e-162;
Matches 345; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
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```
Qy 1 TTGCTGTAGAAAATCCCATGATAGACTGTGTGCGAGAGACCTTGACACTGCTCTCCACT 60
Db 58 TTGCTGTAGAAAATCCCATGATAGACTGTGTGCGAGAGACCTTGACACTGCTCTCCACT 117
Qy 61 CATGAACCTGTGCTGATAGGCGATGGGAACCTGATGATCTTCTACTCTCGAAAATTAATAAT 120
Db 118 CATGAACCTGTGCTGATAGGCGATGGGAACCTGATGATCTTCTACTCTCGAAAATTAATAAT 177
Qy 121 CACCAACTGTGCATTAAGAAGTTTTCAGGGTATAGACATTTGAAGAACCAAACTGCC 180
Db 178 CACCAACTGTGCATTAAGAAGTTTTCAGGGTATAGACATTTGAAGAACCAAACTGCC 237
Qy 181 CACGGGAGGCTGTGATTAACCTATTCCTTTAATTAAGAAACACATAGAG 240
Db 238 CACGGGAGGCTGTGATTAACCTATTCCTTTAATTAAGAAACACATAGAG 297
Qy 241 CGCCAAAAAAGAGTGTGCGAGAGAAAGATGAGAGTGAACAAAGTTCTAGACTACTG 300
Db 298 CGCCAAAAAAGAGTGTGCGAGAGAAAGATGAGAGTGAACAAAGTTCTAGACTACTG 357
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Qy 301 CAAGTATTTCTTGCTGTATTAACACGAGTGAACCGGAAGT 345
Db 45 CAAGTATTTCTTGCTGTATTAACACGAGTGAACCGGAAGT 1

RESULT 7
US-09-451-527-83
; Sequence 83, Application US/09451527
; Patent No. 6482403
; GENERAL INFORMATION:
; APPLICANT: Sim, Gek-kee
; APPLICANT: Yang, Shumin
; APPLICANT: Drelitz, Matthew J.
; APPLICANT: Wonderling, Ramani S.
; TITLE OF INVENTION: CANINE AND FELINE IMMUNOREGULATORY PROTEINS, NUCLEIC
; FILE REFERENCE: IM-2-C2
; CURRENT APPLICATION NUMBER: US/09/451,527
; EARLIER FILING DATE: 1999-12-01
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QY 301 CAAGTATTTCTTGGTGTATAAACAACCGAGTGGACACCCGAAAGT 345
|||
Db 386 CAAGTATTTCTTGGTGTATAAACAACCGAGTGGACACCCGAAAGT 430

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RESULT 10
US-09-322-409-82/c
; Sequence 82, Application US/09322409
; Patent No. 6471957
; GENERAL INFORMATION:
; APPLICANT: Sim, Gek-kee
; APPLICANT: Yang, Shumin
; APPLICANT: Dreitz, Matthew J.
; APPLICANT: Wonderling, Ramani S.
; TITLE OF INVENTION: CANINE AND FELINE IMMUNOREGULATORY PROTEINS, NUCLEIC
; FILE REFERENCE: IM-2-C1
; FILE REFERENCE: ACID MOLECULES, AND USBS THEREOF
; CURRENT APPLICATION NUMBER: US/09/322,409
; CURRENT FILING DATE: 1999-05-28
; EARLIER APPLICATION NUMBER: 60/087,306
; EARLIER FILING DATE: 1998-05-29
; NUMBER OF SEQ ID NOS: 154
; SOFTWARE: PatentIn Ver. 2.0
; SEQ ID NO 82
; LENGTH: 610
; TYPE: DNA
; ORGANISM: Canis familiaris
US-09-322-409-82

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RESULT 11
 US-09-451-527-80
 ; Sequence 80. Application US/09451527
 ; Patent No. 6482403
 ; GENERAL INFORMATION:
 ; APPLICANT: Sim, Gek-Kea
 ; APPLICANT: Yang, Shunlin
 ; APPLICANT: Drelitz, Matthew J.
 ; APPLICANT: Wonderling, Ramani S.
 ; TITLE OF INVENTION: CANINE AND FELINE IMMUNOREGULATORY PROTEINS, NUCLEIC
 ; TITLE OF INVENTION: ACID MOLECULES, AND USES THEREOF
 ; FILE REFERENCE: IM-2-C2
 ; CURRENT APPLICATION NUMBER: US/09/451,527
 ; CURRENT FILING DATE: 1999-12-01

```

:
: EARLIER APPLICATION NUMBER: 09/322,409
: EARLIER FILING DATE: 1999-05-28
: EARLIER APPLICATION NUMBER: 60/087,306
: EARLIER FILING DATE: 1998-05-29
: NUMBER OF SEQ ID NOS: 174
: SOFTWARE: PatentIn Ver. 2.0
:
: SEQ ID NO 80
:
: LENGTH: 610
: TYPE: DNA
: ORGANISM: Canis familiaris
: FEATURE:
: NAME/KEY: CDS
: LOCATION: (29)..(430)
US-09-451-527-80

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```

RESULT 12
US-09-451-527-82/c
; Sequence 82, Application US/09451527
; Patent No. 6482403
; GENERAL INFORMATION:
; APPLICANT: Sim, Gek-Kea
; APPLICANT: Yang, Shumin
; APPLICANT: Dreltz, Matthew J.
; APPLICANT: Wonderling, Ramani S.
; TITLE OF INVENTION: CANINE AND FELINE IMMUNOREGULATORY PROTEINS, NUCLEIC
; FILE REFERENCE: IM-2-C2
; CURRENT FILING DATE: 1999-12-01
; EARLIER APPLICATION NUMBER: US/09/451.527
; EARLIER FILING DATE: 1999-05-28
; EARLIER APPLICATION NUMBER: 60/087.306
; EARLIER FILING DATE: 1998-05-29
; NUMBER OF SEQ ID NOS: 174
; SOFTWARE: PatentIn Ver. 2.0
; SEQ ID NO 82
; LENGTH: 610
; TYPE: DNA
; ORGANISM: Canis familiaris
US-09-451-527-82

Query Match      100.0%; Score 345; DB 4; Length 610;
Best Local Similarity 100.0%; Pred. NO. 1,2e-162;
Matches 345; Conservative 0; Mismatches 0; Indels 0; Gaps 0

```

```
Qy 1 TTGCTGTAGAAAATCCCATGAAATGACTGTGGCAGAGACCTTGACACTGCTCTCCACT 60
Db 525 TTGCTGTAGAAAATCCCATGAAATGACTGTGGCAGAGACCTTGACACTGCTCTCCACT 466
Qy 61 CATCGAAGCTGGCTGATAGGCGATGGGAACCTGATGATCTTCTACTCTGAAAAATAAAAAT 120
Db 465 CATCGAAGCTGGCTGATAGGCGATGGGAACCTGATGATCTTCTACTCTGAAAAATAAAAAT 406
Qy 121 CACCAACTGTGCACTTAAAGAAAGTTTTCAGGGTATAGACATTTGAAGAACCAACTGCC 180
Db 405 CACCAACTGTGCACTTAAAGAAAGTTTTCAGGGTATAGACATTTGAAGAACCAACTGCC 346
Qy 181 CACGGGAGGCTGTGATAACTATTCGAAACCTTGTCTTTAAATAAAGAACATAGAG 240
Db 345 CACGGGAGGCTGTGATAACTATTCGAAACCTTGTCTTTAAATAAAGAACATAGAG 286
Qy 241 CGCCAAAAAAGAGTGTGCAAGAGAAAGATGAGAGTGCACAAAGTCCCTAGACTACTG 300
Db 285 CGCCAAAAAAGAGTGTGCAAGAGAAAGATGAGAGTGCACAAAGTCCCTAGACTACTG 226
Qy 301 CAAGTATTTCTGTGTATATTAACACCGAGTGAACCGGAAAGT 345
Db 225 CAAGTATTTCTGTGTATATTAACACCGAGTGAACCGGAAAGT 181
```

RESULT 13

US-09-371-615A-1

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/ Sequence 1, Application US/09371615A
/ Patent No. 653781
/ GENERAL INFORMATION:
/ APPLICANT: IDEXX LABORATORIES
/ TITLE OF INVENTION: METHODS AND COMPOSITIONS CONCERNING
/ TITLE OF INVENTION: CANINE INTERLEUKIN 5
/ FILE REFERENCE: 03604001700US00
/ CURRENT APPLICATION NUMBER: US/09/371,615A
/ CURRENT FILING DATE: 1999-08-10
/ NUMBER OF SEQ ID NOS: 8
/ SOFTWARE: FASTSEQ for Windows Version 3.0
/ SEQ ID NO 1
/ LENGTH: 405
/ TYPE: DNA
/ ORGANISM: Canis familiaris
/ US-09-371-615A-1
```

```
Query Match 97.4%; Score 336; DB 4; Length 405;
Best Local Similarity 100.0%; Pred. No. 3,8e-158;
Matches 336; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
```

```
Qy 1 TTGCTGTAGAAAATCCCATGAAATGACTGTGGCAGAGACCTTGACACTGCTCTCCACT 60
Db 58 TTGCTGTAGAAAATCCCATGAAATGACTGTGGCAGAGACCTTGACACTGCTCTCCACT 117
Qy 61 CATCGAAGCTGGCTGATAGGCGATGGGAACCTGATGATCTTCTACTCTGAAAAATAAAAAT 120
Db 118 CATCGAAGCTGGCTGATAGGCGATGGGAACCTGATGATCTTCTACTCTGAAAAATAAAAAT 177
Qy 121 CACCAACTGTGCACTTAAAGAAAGTTTTCAGGGTATAGACATTTGAAGAACCAACTGCC 180
Db 178 CACCAACTGTGCACTTAAAGAAAGTTTTCAGGGTATAGACATTTGAAGAACCAACTGCC 237
Qy 181 CACGGGAGGCTGTGATAACTATTCGAAACCTTGTCTTTAAATAAAGAACATAGAG 240
Db 238 CACGGGAGGCTGTGATAACTATTCGAAACCTTGTCTTTAAATAAAGAACATAGAG 297
Qy 241 CGCCAAAAAAGAGTGTGCAAGAGAAAGATGAGAGTGCACAAAGTCCCTAGACTACTG 300
Db 298 CGCCAAAAAAGAGTGTGCAAGAGAAAGATGAGAGTGCACAAAGTCCCTAGACTACTG 357
Qy 301 CAAGTATTTCTGTGTATATTAACACCGAGTGAACCGGAAAGT 346
Db 358 CAAGTATTTCTGTGTATATTAACACCGAGTGAACCGGAAAGT 393
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```
RESULT 14
US-09-322-409-137
/ Sequence 137, Application US/09322409
/ Patent No. 6471957
/ GENERAL INFORMATION:
/ APPLICANT: Sim, Gek-Kee
/ APPLICANT: Yang, Shumin
/ APPLICANT: Dreitz, Matthew J.
/ APPLICANT: Wonderting, Ramani S.
/ TITLE OF INVENTION: CANINE AND FELINE IMMUNOREGULATORY PROTEINS, NUCLEIC
/ FILE REFERENCE: IM-2-C1
/ CURRENT APPLICATION NUMBER: US/09/322,409
/ CURRENT FILING DATE: 1999-05-28
/ EARLIER APPLICATION NUMBER: 60/087,306
/ EARLIER FILING DATE: 1998-05-29
/ NUMBER OF SEQ ID NOS: 154
/ SOFTWARE: PatentIn Ver. 2.0
/ SEQ ID NO 137
/ LENGTH: 36
/ TYPE: DNA
/ ORGANISM: Artificial Sequence
/ OTHER INFORMATION: Description of Artificial Sequence: Synthetic
/ OTHER INFORMATION: Primer
/ US-09-322-409-137
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```
Query Match 6.1%; Score 21; DB 4; Length 36;
Best Local Similarity 100.0%; Pred. No. 1.1;
Matches 21; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
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```
Qy 1 TTGCTGTAGAAAATCCCATG 21
Db 16 TTGCTGTAGAAAATCCCATG 36
```

RESULT 15

US-09-451-527-137

```
/ Sequence 137, Application US/09451527
/ Patent No. 6482403
/ GENERAL INFORMATION:
/ APPLICANT: Sim, Gek-Kee
/ APPLICANT: Yang, Shumin
/ APPLICANT: Dreitz, Matthew J.
/ APPLICANT: Wonderting, Ramani S.
/ TITLE OF INVENTION: CANINE AND FELINE IMMUNOREGULATORY PROTEINS, NUCLEIC
/ FILE REFERENCE: IM-2-C2
/ CURRENT APPLICATION NUMBER: US/09/451,527
/ CURRENT FILING DATE: 1999-12-01
/ EARLIER APPLICATION NUMBER: 09/322,409
/ EARLIER FILING DATE: 1999-05-28
/ EARLIER APPLICATION NUMBER: 60/087,306
/ EARLIER FILING DATE: 1998-05-29
/ NUMBER OF SEQ ID NOS: 174
/ SOFTWARE: PatentIn Ver. 2.0
/ SEQ ID NO 137
/ LENGTH: 36
/ TYPE: DNA
/ ORGANISM: Artificial Sequence
/ OTHER INFORMATION: Description of Artificial Sequence: Synthetic
/ OTHER INFORMATION: Primer
/ US-09-451-527-137
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Query Match 6.1%; Score 21; DB 4; Length 36;
Best Local Similarity 100.0%; Pred. No. 1.1;
Matches 21; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
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Qy 1 TTGCTGTAGAAAATCCCATG 21
Db 16 TTGCTGTAGAAAATCCCATG 36
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Tue Aug 9 08:32:41 2005

us-10-787-382-9.Oligo.rn1

Page 7

Search completed: August 8, 2005, 13:43:37
Job time : 71.2587 secs

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GenCore version 5.1.6
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OM nucleic - nucleic search, using sw model

Run on: August 8, 2005, 05:12:23 ; Search time 283.896 Seconds
(without alignments)
7877.554 Million cell updates/sec

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Minimum DB seq length: 0

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Post-processing: Listing first 45 summaries

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Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

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3	345	100.0	345	14	US-10-218-654-85
4	345	100.0	345	14	US-10-218-654-87
5	345	100.0	345	15	US-10-262-439-85
6	345	100.0	345	15	US-10-262-439-87
7	345	100.0	345	19	US-10-787-382-9

C	8	345	100.0	345	19	US-10-787-382-11	Sequence 11, Appl
	9	345	100.0	402	9	US-09-755-633-7	Sequence 7, Appl
C	10	345	100.0	402	9	US-09-755-633-8	Sequence 8, Appl
	11	345	100.0	402	14	US-10-218-654-83	Sequence 83, Appl
C	12	345	100.0	402	14	US-10-218-654-84	Sequence 84, Appl
	13	345	100.0	402	15	US-10-262-439-83	Sequence 83, Appl
C	14	345	100.0	402	15	US-10-262-439-84	Sequence 84, Appl
	15	345	100.0	402	19	US-10-787-382-7	Sequence 7, Appl
C	16	345	100.0	402	19	US-10-787-382-8	Sequence 8, Appl
	17	345	100.0	610	9	US-09-755-633-4	Sequence 4, Appl
C	18	345	100.0	610	9	US-09-755-633-6	Sequence 6, Appl
	19	345	100.0	610	14	US-10-218-654-80	Sequence 80, Appl
C	20	345	100.0	610	14	US-10-218-654-82	Sequence 82, Appl
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C	22	345	100.0	610	15	US-10-262-439-82	Sequence 82, Appl
	23	345	100.0	610	19	US-10-787-382-4	Sequence 4, Appl
C	24	345	100.0	610	19	US-10-787-382-6	Sequence 6, Appl
	25	259	75.1	671	9	US-09-755-633-21	Sequence 21, Appl
C	26	259	75.1	671	19	US-10-787-382-21	Sequence 21, Appl
	27	129	37.4	1658	9	US-09-755-633-18	Sequence 18, Appl
C	28	129	37.4	1658	9	US-09-755-633-19	Sequence 19, Appl
	29	129	37.4	1658	19	US-10-787-382-18	Sequence 18, Appl
C	30	129	37.4	1658	19	US-10-787-382-19	Sequence 19, Appl
	31	21	6.1	26	9	US-09-789-529-81	Sequence 81, Appl
C	32	21	6.1	36	9	US-09-755-633-12	Sequence 12, Appl
	33	21	6.1	36	14	US-10-218-654-137	Sequence 137, Appl
C	34	21	6.1	36	15	US-10-262-439-137	Sequence 137, Appl
	35	21	6.1	36	19	US-10-787-382-12	Sequence 12, Appl
C	36	21	6.1	459	22	US-10-880-101A-85	Sequence 85, Appl
	37	21	6.1	816	17	US-10-191-997-90	Sequence 90, Appl
C	38	21	6.1	816	18	US-10-641-643-1236	Sequence 1236, Appl
	39	21	6.1	816	21	US-10-929-182-4	Sequence 21, Appl
C	40	21	6.1	858	22	US-10-880-101A-87	Sequence 87, Appl
	41	21	6.1	858	16	US-10-295-074-8	Sequence 8, Appl
C	42	21	6.1	858	16	US-10-295-074-10	Sequence 8, Appl
	43	21	6.1	858	20	US-10-846-911-8	Sequence 8, Appl
C	44	21	6.1	858	20	US-10-846-911-10	Sequence 10, Appl
	45	21	6.1	864	16	US-10-295-074-12	Sequence 12, Appl

ALIGNMENTS

RESULT 1
US-09-755-633-9
; Sequence 9, Application US/09755633
; Patent No. US20020127200A1
; GENERAL INFORMATION:
; APPLICANT: Yang, Shumin
; APPLICANT: McCall, Catherine A.
; APPLICANT: Weber, Eric R.
; TITLE OF INVENTION: CANINE AND FELINE IMMUNOREGULATORY PROTEINS, NUCLEIC
; FILE REFERENCE: IM-2-C1-C1
; CURRENT APPLICATION NUMBER: US/09/755,633
; CURRENT FILING DATE: 2001-01-05
; PRIOR APPLICATION NUMBER: 09/322,409
; PRIOR FILING DATE: 1999-05-28
; PRIOR APPLICATION NUMBER: 60/087,306
; PRIOR FILING DATE: 1998-05-29
; NUMBER OF SEQ ID NOS: 21
; SOFTWARE: PatentIn Ver. 2.1
; SEQ ID NO 9
; LENGTH: 345
; TYPE: DNA
; ORGANISM: Canis familiaris
; FEATURE:
; NAME/KEY: CDS
; LOCATION: (1)..(345)
US-09-755-633-9
Query Match 100.0%; Score 345; DB 9; Length 345;
Best Local Similarity 100.0%; Pred. No. 2.9e-172;

Matches 345; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

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Db 1 TTGCTGTAGAAAATCCCATGATAGACTGTGCGACAGACCTTGACACTGCTCCACT 60

QY 61 CATGAACCTGGCTGATAGGCGATGGAACTGTATGATTCCTACTCTGAAAAATAAAT 120
Db 61 CATGAACCTGGCTGATAGGCGATGGAACTGTATGATTCCTACTCTGAAAAATAAAT 120

QY 121 CACCAACTGTGCACTTAAGAAGTTTTCAGGGTATAGACATTTGAAGAACCAACGCC 180
Db 121 CACCAACTGTGCACTTAAGAAGTTTTCAGGGTATAGACATTTGAAGAACCAACGCC 180

QY 181 CACGGGAGGCTGTGATTAACCTATTCCTTAATTAAGAAACATAGAG 240
Db 181 CACGGGAGGCTGTGATTAACCTATTCCTTAATTAAGAAACATAGAG 240

QY 241 CGCCAAAAAAGGTGTGCGAGGAAAGATGAGAGTGAACMAAGTTCCTAGACTACCTG 300
Db 241 CGCCAAAAAAGGTGTGCGAGGAAAGATGAGAGTGAACMAAGTTCCTAGACTACCTG 300

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Db 301 CAAGTATTTCTTGCTGTATTAACACCGAGTGACACCGGAAAGT 345

RESULT 2

US-09-755-633-11/c
; Sequence 11, Application US/09755633
; Patent No. US020127200A1
; GENERAL INFORMATION:
; APPLICANT: Yang, Shumin
; APPLICANT: Mccall, Catherine A.
; APPLICANT: Weber, Eric R.
; TITLE OF INVENTION: CANINE AND FELINE IMMUNOREGULATORY PROTEINS, NUCLEIC
; TITLE OF INVENTION: ACID MOLECULES, AND USES THEREOF
; FILE REFERENCE: IM-2-C1-C1
; CURRENT APPLICATION NUMBER: US/09/755,633
; CURRENT FILING DATE: 2001-01-05
; PRIOR APPLICATION NUMBER: 09/322,409
; PRIOR FILING DATE: 1999-05-28
; PRIOR APPLICATION NUMBER: 60/087,306
; PRIOR FILING DATE: 1998-05-29
; SOFTWARE: PatentIn Ver. 2.1
; SEQ ID NO 11
; LENGTH: 345
; TYPE: DNA
; ORGANISM: Canis familiaris
US-09-755-633-11

Query Match 100.0%; Score 345; DB 9; Length 345;

Best Local Similarity 100.0%; Pred. No. 2.9e-172;
Matches 345; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

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Db 345 TTGCTGTAGAAAATCCCATGATAGACTGTGCGACAGACCTTGACACTGCTCCACT 286

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QY 121 CACCAACTGTGCACTTAAGAAGTTTTCAGGGTATAGACATTTGAAGAACCAACGCC 180
Db 225 CACCAACTGTGCACTTAAGAAGTTTTCAGGGTATAGACATTTGAAGAACCAACGCC 166

QY 181 CACGGGAGGCTGTGATTAACCTATTCCTTAATTAAGAAACATAGAG 240
Db 165 CACGGGAGGCTGTGATTAACCTATTCCTTAATTAAGAAACATAGAG 106

QY 241 CGCCAAAAAAGGTGTGCGAGGAAAGATGAGAGTGAACMAAGTTCCTAGACTACCTG 300

Db 105 CGCCAAAAAAGGTGTGCGAGGAAAGATGAGAGTGAACMAAGTTCCTAGACTACCTG 46
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RESULT 3

US-10-218-654-85
; Sequence 85, Application US/10218654
; Publication No. US20030099609A1
; GENERAL INFORMATION:
; APPLICANT: Sim, Gek-kee
; APPLICANT: Yang, Shumin
; APPLICANT: Dreitz, Matthew J.
; APPLICANT: Wondeling, Ramani S.
; TITLE OF INVENTION: CANINE AND FELINE IMMUNOREGULATORY PROTEINS, NUCLEIC
; TITLE OF INVENTION: ACID MOLECULES, AND USES THEREOF
; FILE REFERENCE: IM-2-C1
; CURRENT APPLICATION NUMBER: US/10/218,654
; CURRENT FILING DATE: 2002-08-13
; PRIOR APPLICATION NUMBER: US/09/322,409
; PRIOR FILING DATE: 1999-05-28
; PRIOR APPLICATION NUMBER: 60/087,306
; PRIOR FILING DATE: 1998-05-29
; NUMBER OF SEQ ID NOS: 154
; SOFTWARE: PatentIn Ver. 2.0
; SEQ ID NO 85
; LENGTH: 345
; TYPE: DNA
; ORGANISM: Canis familiaris
; FEATURE:
; NAME/KEY: CDS
; LOCATION: (1)..(345)
US-10-218-654-85

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Best Local Similarity 100.0%; Pred. No. 2.9e-172;
Matches 345; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

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QY 121 CACCAACTGTGCACTTAAGAAGTTTTCAGGGTATAGACATTTGAAGAACCAACGCC 180
Db 121 CACCAACTGTGCACTTAAGAAGTTTTCAGGGTATAGACATTTGAAGAACCAACGCC 180

QY 181 CACGGGAGGCTGTGATTAACCTATTCCTTAATTAAGAAACATAGAG 240
Db 181 CACGGGAGGCTGTGATTAACCTATTCCTTAATTAAGAAACATAGAG 240

QY 241 CGCCAAAAAAGGTGTGCGAGGAAAGATGAGAGTGAACMAAGTTCCTAGACTACCTG 300
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QY 301 CAAGTATTTCTTGCTGTATTAACACCGAGTGACACCGGAAAGT 345
Db 301 CAAGTATTTCTTGCTGTATTAACACCGAGTGACACCGGAAAGT 345

RESULT 4

US-10-218-654-87/c
; Sequence 87, Application US/10218654
; Publication No. US20030099609A1
; GENERAL INFORMATION:
; APPLICANT: Sim, Gek-kee
; APPLICANT: Yang, Shumin

APPLICANT: Dreitz, Matthew J.
APPLICANT: Wonderling, Ramani S.
TITLE OF INVENTION: CANINE AND FELINE IMMUNOREGULATORY PROTEINS, NUCLEIC
ACID MOLECULES, AND USES THEREOF
FILE REFERENCE: IM-2-C1
CURRENT APPLICATION NUMBER: US/10/218,654
PRIORITY FILING DATE: 2002-08-13
PRIORITY APPLICATION NUMBER: US/09/322,409
PRIORITY FILING DATE: 1999-05-28
PRIORITY APPLICATION NUMBER: 60/087,306
PRIORITY FILING DATE: 1998-05-29
NUMBER OF SEQ ID NOS: 154
SOFTWARE: PatentIn Ver. 2.0
SEQ ID NO 87
LENGTH: 345
TYPE: DNA
ORGANISM: Canis familiaris
US-10-218-654-87

Query Match 100.0%; Score 345; DB 14; Length 345;
Best Local Similarity 100.0%; Pred. No. 2,9e-172;
Matches 345; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

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QY 61 CATGGAACCTGGCTGATAGGCGATGGGAACCTGATGATCTTCTACTCTCTGAAAAATTAAT 120
DB 285 CATGGAACCTGGCTGATAGGCGATGGGAACCTGATGATCTTCTACTCTCTGAAAAATTAAT 226
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RESULT 5

US-10-262-439-85
Sequence 85, Application US/10262439
Publication No. US20030143196A1
GENERAL INFORMATION:
APPLICANT: Sim, Gek-Kee
APPLICANT: Yang, Shumin
APPLICANT: Dreitz, Matthew J.
APPLICANT: Wonderling, Ramani S.
TITLE OF INVENTION: CANINE AND FELINE IMMUNOREGULATORY PROTEINS, NUCLEIC
ACID MOLECULES, AND USES THEREOF
FILE REFERENCE: IM-2-C2
CURRENT APPLICATION NUMBER: US/10/262,439
PRIORITY FILING DATE: 2002-09-30
PRIORITY APPLICATION NUMBER: US/09/451,527
PRIORITY FILING DATE: 1999-12-01
PRIORITY APPLICATION NUMBER: 09/322,409
PRIORITY FILING DATE: 1999-05-28
PRIORITY APPLICATION NUMBER: 60/087,306
PRIORITY FILING DATE: 1998-05-29
NUMBER OF SEQ ID NOS: 174
SOFTWARE: PatentIn Ver. 2.0
SEQ ID NO 85
LENGTH: 345
TYPE: DNA

ORGANISM: Canis familiaris
FEATURE:
NAME/KEY: CDS
LOCATION: (1)..(345)
US-10-262-439-85

Query Match 100.0%; Score 345; DB 15; Length 345;
Best Local Similarity 100.0%; Pred. No. 2,9e-172;
Matches 345; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

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DB 1 TTGCTGTAGAAATCCCATGAATAGACTGTGGCAGAGACCTTGACACTGCTCTCCACT 60
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QY 121 CACCAACTGTGCATTAAGAAGTTTTCAGGGTATAGACATTTGAAGAACCAACTGCC 180
DB 121 CACCAACTGTGCATTAAGAAGTTTTCAGGGTATAGACATTTGAAGAACCAACTGCC 180
QY 181 CACGGGAGGCTGTGATTAATCTATTTCCAAACTTGTCTTTAATTAAGAACACATAGAG 240
DB 181 CACGGGAGGCTGTGATTAATCTATTTCCAAACTTGTCTTTAATTAAGAACACATAGAG 240
QY 241 CGCCAAAAAAGGTGTGCGAGAGAAAGATGAGAGTGAACAACTCTTGACTACTG 300
DB 241 CGCCAAAAAAGGTGTGCGAGAGAAAGATGAGAGTGAACAACTCTTGACTACTG 300
QY 301 CAAGTATTTCTTGTGTATTAACACCGAGTGAACCGGAAAGT 345
DB 301 CAAGTATTTCTTGTGTATTAACACCGAGTGAACCGGAAAGT 345

RESULT 6

US-10-262-439-87/c
Sequence 87, Application US/10262439
Publication No. US20030143196A1
GENERAL INFORMATION:
APPLICANT: Sim, Gek-Kee
APPLICANT: Yang, Shumin
APPLICANT: Dreitz, Matthew J.
APPLICANT: Wonderling, Ramani S.
TITLE OF INVENTION: CANINE AND FELINE IMMUNOREGULATORY PROTEINS, NUCLEIC
ACID MOLECULES, AND USES THEREOF
FILE REFERENCE: IM-2-C2
CURRENT APPLICATION NUMBER: US/10/262,439
PRIORITY FILING DATE: 2002-09-30
PRIORITY APPLICATION NUMBER: US/09/451,527
PRIORITY FILING DATE: 1999-12-01
PRIORITY APPLICATION NUMBER: 09/322,409
PRIORITY FILING DATE: 1999-05-28
PRIORITY APPLICATION NUMBER: 60/087,306
PRIORITY FILING DATE: 1998-05-29
NUMBER OF SEQ ID NOS: 174
SOFTWARE: PatentIn Ver. 2.0
SEQ ID NO 87
LENGTH: 345
TYPE: DNA
ORGANISM: Canis familiaris
US-10-262-439-87

Query Match 100.0%; Score 345; DB 15; Length 345;
Best Local Similarity 100.0%; Pred. No. 2,9e-172;
Matches 345; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

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DB 345 TTGCTGTAGAAATCCCATGAATAGACTGTGGCAGAGACCTTGACACTGCTCTCCACT 286
QY 61 CATGGAACCTGGCTGATAGGCGATGGGAACCTGATGATCTTCTACTCTCTGAAAAATTAAT 120


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Db 285 CATGAACCTTGCTGATAGGCGATGGGAACCTGATGATTCCTACTCCTGAAATATAAAT 226
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Qy 121 CACCAACTGTGCTATTAAGAAAGTTTTCAGGGTATAGACATTTGAAGAACCAACTGCC 180
|
Db 225 CACCAACTGTGCTATTAAGAAAGTTTTCAGGGTATAGACATTTGAAGAACCAACTGCC 166
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Qy 181 CACGGGAGGCTGTGATTAACCTATTCCTAACTTGTCTTTATATTAAGAACCATAGAG 240
|
Db 165 CACGGGAGGCTGTGATTAACCTATTCCTAACTTGTCTTTATATTAAGAACCATAGAG 106
|
Qy 241 CCGCAAAAAAAGGTGTGACAGAGAAAGATGAGAGTGAACAAAGTTCCTAGACTACCTG 300
|
Db 105 CCGCAAAAAAAGGTGTGACAGAGAAAGATGAGAGTGAACAAAGTTCCTAGACTACCTG 46
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Db 45 CAAGTATTTCTTGCTGTATTAACACCGAGTGAACACCGGAAAGT 1
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RESULT 7

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US-10-787-382-9
; Sequence 9, Application US/10787382
; Publication No. US20040191868A1
; GENERAL INFORMATION:
; APPLICANT: Yang, Shumin
; APPLICANT: McCall, Catherine A.
; APPLICANT: Weber, Eric R.
; TITLE OF INVENTION: CANINE AND FELINE IMMUNOREGULATORY PROTEINS, NUCLEIC
; FILE REFERENCE: IM-2-C1-C1
; CURRENT APPLICATION NUMBER: US/10/787,382
; CURRENT FILING DATE: 2004-02-24
; PRIOR APPLICATION NUMBER: US/09/755,633
; PRIOR FILING DATE: 2001-01-05
; PRIOR APPLICATION NUMBER: 09/322,409
; PRIOR FILING DATE: 1999-05-28
; PRIOR APPLICATION NUMBER: 60/087,306
; PRIOR FILING DATE: 1998-05-29
; NUMBER OF SEQ ID NOS: 21
; SOFTWARE: PatentIn Ver. 2.1
; SEQ ID NO 9
; LENGTH: 345
; TYPE: DNA
; ORGANISM: Canis familiaris
; FEATURES:
; NAME/KEY: CDS
; LOCATION: (1)..(345)
US-10-787-382-9
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Query Match 100.0%; Score 345; DB 19; Length 345;
Best Local Similarity 100.0%; Pred. No. 2.9e-172;
Matches 345; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
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Qy 1 TTTCCTGTAGAAAATCCCATGAATAGACTGTGCGACAGACCTTGACATGCTCTCCACT 60
|
Db 1 TTTCCTGTAGAAAATCCCATGAATAGACTGTGCGACAGACCTTGACATGCTCTCCACT 60
|
Qy 61 CATGAACCTTGCTGATAGGCGATGGAACTGATGATTCCTACTCCTGAAATATAAAT 120
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|
Qy 121 CACCAACTGTGCTATTAAGAAAGTTTTCAGGGTATAGACATTTGAAGAACCAACTGCC 180
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Qy 241 CCGCAAAAAAAGGTGTGACAGAGAAAGATGAGAGTGAACAAAGTTCCTAGACTACCTG 300
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US-10-787-382-11/c
; Sequence 11, Application US/10787382
; Publication No. US20040191868A1
; GENERAL INFORMATION:
; APPLICANT: Yang, Shumin
; APPLICANT: McCall, Catherine A.
; APPLICANT: Weber, Eric R.
; TITLE OF INVENTION: CANINE AND FELINE IMMUNOREGULATORY PROTEINS, NUCLEIC
; FILE REFERENCE: IM-2-C1-C1
; CURRENT APPLICATION NUMBER: US/10/787,382
; CURRENT FILING DATE: 2004-02-24
; PRIOR APPLICATION NUMBER: US/09/755,633
; PRIOR FILING DATE: 2001-01-05
; PRIOR APPLICATION NUMBER: 09/322,409
; PRIOR FILING DATE: 1999-05-28
; PRIOR APPLICATION NUMBER: 60/087,306
; PRIOR FILING DATE: 1998-05-29
; NUMBER OF SEQ ID NOS: 21
; SOFTWARE: PatentIn Ver. 2.1
; SEQ ID NO 11
; LENGTH: 345
; TYPE: DNA
; ORGANISM: Canis familiaris
US-10-787-382-11
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Query Match 100.0%; Score 345; DB 19; Length 345;
Best Local Similarity 100.0%; Pred. No. 2.9e-172;
Matches 345; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
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Qy 1 TTTCCTGTAGAAAATCCCATGAATAGACTGTGCGACAGACCTTGACATGCTCTCCACT 60
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Db 345 TTTCCTGTAGAAAATCCCATGAATAGACTGTGCGACAGACCTTGACATGCTCTCCACT 286
|
Qy 61 CATGAACCTTGCTGATAGGCGATGGAACTGATGATTCCTACTCCTGAAATATAAAT 120
|
Db 285 CATGAACCTTGCTGATAGGCGATGGAACTGATGATTCCTACTCCTGAAATATAAAT 226
|
Qy 121 CACCAACTGTGCTATTAAGAAAGTTTTCAGGGTATAGACATTTGAAGAACCAACTGCC 180
|
Db 225 CACCAACTGTGCTATTAAGAAAGTTTTCAGGGTATAGACATTTGAAGAACCAACTGCC 166
|
Qy 181 CACGGGAGGCTGTGATTAACCTATTCCTAACTTGTCTTTATATTAAGAACCATAGAG 240
|
Db 165 CACGGGAGGCTGTGATTAACCTATTCCTAACTTGTCTTTATATTAAGAACCATAGAG 106
|
Qy 241 CCGCAAAAAAAGGTGTGACAGAGAAAGATGAGAGTGAACAAAGTTCCTAGACTACCTG 300
|
Db 105 CCGCAAAAAAAGGTGTGACAGAGAAAGATGAGAGTGAACAAAGTTCCTAGACTACCTG 46
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Qy 301 CAAGTATTTCTTGCTGTATTAACACCGAGTGAACACCGGAAAGT 345
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Db 45 CAAGTATTTCTTGCTGTATTAACACCGAGTGAACACCGGAAAGT 1
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RESULT 9

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US-09-755-633-7
; Sequence 7, Application US/09755633
; Patent No. US20020127200A1
; GENERAL INFORMATION:
; APPLICANT: Yang, Shumin
; APPLICANT: McCall, Catherine A.
; APPLICANT: Weber, Eric R.
; TITLE OF INVENTION: CANINE AND FELINE IMMUNOREGULATORY PROTEINS, NUCLEIC
; FILE REFERENCE: IM-2-C1-C1
; CURRENT APPLICATION NUMBER: US/09/755,633
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;; CURRENT FILING DATE: 2001-01-05
;; PRIOR APPLICATION NUMBER: 09/322,409
;; PRIOR FILING DATE: 1999-05-28
;; PRIOR APPLICATION NUMBER: 60/087,306
;; PRIOR FILING DATE: 1998-05-29
;; NUMBER OF SEQ ID NOS: 21
;; SOFTWARE: PatentIn Ver. 2.1
;; SEQ ID NO 7
;; LENGTH: 402
;; TYPE: DNA
;; ORGANISM: Canis familiaris
US-09-755-633-7

Query Match 100.0%; Score 345; DB 9; Length 402;
Best Local Similarity 100.0%; Pred. No. 3e-172;
Matches 345; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 TTGCTGTAGAAAATCCCATGAATAGACTGTGCGAGAGACTTGTGACACTGCTCTCCACT 60
Db |||||||
Qy 58 TTGCTGTAGAAAATCCCATGAATAGACTGTGCGAGAGACTTGTGACACTGCTCTCCACT 117
Db |||||||
Qy 61 CATGGAACCTGGCTGATAGGCGATGGAACTGTGATGATTTCTTACTCTCTGAAAATTAATAAT 120
Db |||||||
Qy 118 CATGGAACCTGGCTGATAGGCGATGGAACTGTGATGATTTCTTACTCTCTGAAAATTAATAAT 177
Db |||||||
Qy 121 CACCACTGTGCTATTAAAGAGTTTTCAGGGTATAGACACATTGAAAGACCAACTGCC 180
Db |||||||
Qy 178 CACCACTGTGCTATTAAAGAGTTTTCAGGGTATAGACACATTGAAAGACCAACTGCC 237
Db |||||||
Qy 181 CACGGGAGGCTGTGATTAACCTATTCCTCTTCTTAAATTAATAAGAACATAGAG 240
Db |||||||
Qy 238 CACGGGAGGCTGTGATTAACCTATTCCTCTTCTTAAATTAATAAGAACATAGAG 297
Db |||||||
Qy 241 CGCCAAAAAAGAGTGTGCGAGGAAAGATGAGAGTGAACAACTTCTGACTACTG 300
Db |||||||
Qy 298 CGCCAAAAAAGAGTGTGCGAGGAAAGATGAGAGTGAACAACTTCTGACTACTG 357
Db |||||||
Qy 301 CAAGTATTTCTTGTGTATTAACACCGAGTGAACCGGAAAGT 345
Db |||||||
Qy 358 CAAGTATTTCTTGTGTATTAACACCGAGTGAACCGGAAAGT 402
Db |||||||

RESULT 10

US-09-755-633-8/c
;; Sequence 8, Application US/09755633
;; Patent No. US20020127200A1
;; GENERAL INFORMATION:
;; APPLICANT: Yang, Shumin
;; APPLICANT: Mccall, Catherine A.
;; APPLICANT: Weber, Eric R.
;; TITLE OF INVENTION: CANINE AND FELINE IMMUNOREGULATORY PROTEINS, NUCLEIC
;; TITLE OF INVENTION: ACID MOLECULES, AND USES THEREOF
;; FILE REFERENCE: IM-2-C1-C1
;; CURRENT FILING DATE: 2001-01-05
;; PRIOR APPLICATION NUMBER: 09/322,409
;; PRIOR FILING DATE: 1999-05-28
;; PRIOR APPLICATION NUMBER: 60/087,306
;; PRIOR FILING DATE: 1998-05-29
;; NUMBER OF SEQ ID NOS: 21
;; SOFTWARE: PatentIn Ver. 2.1
;; SEQ ID NO 8
;; LENGTH: 402
;; TYPE: DNA
;; ORGANISM: Canis familiaris
US-09-755-633-8

Query Match 100.0%; Score 345; DB 9; Length 402;
Best Local Similarity 100.0%; Pred. No. 3e-172;
Matches 345; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
Qy 1 TTGCTGTAGAAAATCCCATGAATAGACTGTGCGAGAGACTTGTGACACTGCTCTCCACT 60
Db |||||||

Db 345 TTGCTGTAGAAAATCCCATGAATAGACTGTGCGAGAGACTTGTGACACTGCTCTCCACT 286
Qy 61 CATGGAACCTGGCTGATAGGCGATGGAACTGTGATGATTTCTTACTCTCTGAAAATTAATAAT 120
Db |||||||
Qy 285 CATGGAACCTGGCTGATAGGCGATGGAACTGTGATGATTTCTTACTCTCTGAAAATTAATAAT 226
Db |||||||
Qy 121 CACCACTGTGCTATTAAAGAGTTTTCAGGGTATAGACACATTGAAAGACCAACTGCC 180
Db |||||||
Qy 225 CACCACTGTGCTATTAAAGAGTTTTCAGGGTATAGACACATTGAAAGACCAACTGCC 166
Db |||||||
Qy 181 CACGGGAGGCTGTGATTAACCTATTCCTCTTCTTAAATTAATAAGAACATAGAG 240
Db |||||||
Qy 165 CACGGGAGGCTGTGATTAACCTATTCCTCTTCTTAAATTAATAAGAACATAGAG 106
Db |||||||
Qy 241 CGCCAAAAAAGAGTGTGCGAGGAAAGATGAGAGTGAACAACTTCTGACTACTG 300
Db |||||||
Qy 105 CGCCAAAAAAGAGTGTGCGAGGAAAGATGAGAGTGAACAACTTCTGACTACTG 46
Db |||||||
Qy 301 CAAGTATTTCTTGTGTATTAACACCGAGTGAACCGGAAAGT 345
Db |||||||
Qy 45 CAAGTATTTCTTGTGTATTAACACCGAGTGAACCGGAAAGT 1
Db |||||||

RESULT 11

US-10-218-654-83
;; Sequence 83, Application US/10218654
;; Publication No. US20030099609A1
;; GENERAL INFORMATION:
;; APPLICANT: Sim, Gek-kee
;; APPLICANT: Yang, Shumin
;; APPLICANT: Dreitz, Matthew J.
;; APPLICANT: Mondelring, Ramani S.
;; TITLE OF INVENTION: CANINE AND FELINE IMMUNOREGULATORY PROTEINS, NUCLEIC
;; TITLE OF INVENTION: ACID MOLECULES, AND USES THEREOF
;; FILE REFERENCE: IM-2-C1
;; CURRENT FILING DATE: 2002-08-13
;; PRIOR APPLICATION NUMBER: US/10/218,654
;; PRIOR FILING DATE: 2002-08-13
;; PRIOR APPLICATION NUMBER: US/09/322,409
;; PRIOR FILING DATE: 1999-05-28
;; PRIOR APPLICATION NUMBER: 60/087,306
;; PRIOR FILING DATE: 1998-05-29
;; NUMBER OF SEQ ID NOS: 154
;; SOFTWARE: PatentIn Ver. 2.0
;; SEQ ID NO 83
;; LENGTH: 402
;; TYPE: DNA
;; ORGANISM: Canis familiaris
US-10-218-654-83

Query Match 100.0%; Score 345; DB 14; Length 402;
Best Local Similarity 100.0%; Pred. No. 3e-172;
Matches 345; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 TTGCTGTAGAAAATCCCATGAATAGACTGTGCGAGAGACTTGTGACACTGCTCTCCACT 60
Db |||||||
Qy 58 TTGCTGTAGAAAATCCCATGAATAGACTGTGCGAGAGACTTGTGACACTGCTCTCCACT 117
Db |||||||
Qy 61 CATGGAACCTGGCTGATAGGCGATGGAACTGTGATGATTTCTTACTCTCTGAAAATTAATAAT 120
Db |||||||
Qy 118 CATGGAACCTGGCTGATAGGCGATGGAACTGTGATGATTTCTTACTCTCTGAAAATTAATAAT 177
Db |||||||
Qy 121 CACCACTGTGCTATTAAAGAGTTTTCAGGGTATAGACACATTGAAAGACCAACTGCC 180
Db |||||||
Qy 178 CACCACTGTGCTATTAAAGAGTTTTCAGGGTATAGACACATTGAAAGACCAACTGCC 237
Db |||||||
Qy 181 CACGGGAGGCTGTGATTAACCTATTCCTCTTCTTAAATTAATAAGAACATAGAG 240
Db |||||||
Qy 238 CACGGGAGGCTGTGATTAACCTATTCCTCTTCTTAAATTAATAAGAACATAGAG 297
Db |||||||
Qy 241 CGCCAAAAAAGAGTGTGCGAGGAAAGATGAGAGTGAACAACTTCTGACTACTG 300
Db |||||||
Qy 298 CGCCAAAAAAGAGTGTGCGAGGAAAGATGAGAGTGAACAACTTCTGACTACTG 357
Db |||||||

Qy 301 CAAGTATTTCTTGTTGTAATAAACCAGGATGGACACCGGAAAGT 345
Db 358 CAAGTATTTCTTGTTGTAATAAACCAGGATGGACACCGGAAAGT 402

RESULT 12

US-10-218-654-84/C
Sequence 84, Application US/10218654
Publication No. US20030099609A1
GENERAL INFORMATION:
APPLICANT: Sim, Gek-Kee
APPLICANT: Yang, Shumin
APPLICANT: Dreitz, Matthew J.
APPLICANT: Wonderling, Ramani S.
TITLE OF INVENTION: CANINE AND FELINE IMMUNOREGULATORY PROTEINS, NUCLEIC
FILE REFERENCE: IM-2-C1
CURRENT APPLICATION NUMBER: US/10/218,654
CURRENT FILING DATE: 2002-08-13, 409
PRIOR APPLICATION NUMBER: US/09/322,409
PRIOR FILING DATE: 1999-05-28
PRIOR APPLICATION NUMBER: 60/087,306
PRIOR FILING DATE: 1998-05-29
NUMBER OF SEQ ID NOS: 154
SOFTWARE: PatentIn Ver. 2.0
SEQ ID NO 84
LENGTH: 402
TYPE: DNA
ORGANISM: Canis familiaris
US-10-218-654-84

Query Match 100.0%; Score 345; DB 14; Length 402;
Best Local Similarity 100.0%; Pred. No. 3e-172;
Matches 345; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 TTGCTGTAGAAAATCCCATGATAGACTGGTGCAGAGACCTTGACACTGCTCCACT 60
Db 345 TTGCTGTAGAAAATCCCATGATAGACTGGTGCAGAGACCTTGACACTGCTCCACT 286
Qy 61 CATGAACTTGCTGTATAGGCGATGGAACTGATGATTCCTACTCCTGAAATATAAT 120
Db 285 CATGAACTTGCTGTATAGGCGATGGAACTGATGATTCCTACTCCTGAAATATAAT 226
Qy 121 CACCACTGTGCTATTAAGAAATTTTTCAGGGTATAGACATTTGAAGAACCAACTGCC 180
Db 225 CACCACTGTGCTATTAAGAAATTTTTCAGGGTATAGACATTTGAAGAACCAACTGCC 166
Qy 181 CACGGGAGGCTGTGATTAACCTATTCCTTAATAAAGAAACACATAGAG 240
Db 165 CACGGGAGGCTGTGATTAACCTATTCCTTAATAAAGAAACACATAGAG 106
Qy 241 CGCGAAAAAAGGTGTGCAGAGAAAGATGAGAGTCAAAAGTTCCTAGACTACCTG 300
Db 105 CGCGAAAAAAGGTGTGCAGAGAAAGATGAGAGTCAAAAGTTCCTAGACTACCTG 46
Qy 301 CAAGTATTTCTTGTTGTAATAAACCAGGATGGACACCGGAAAGT 345
Db 45 CAAGTATTTCTTGTTGTAATAAACCAGGATGGACACCGGAAAGT 1

RESULT 13

US-10-262-439-83
Sequence 83, Application US/10262439
Publication No. US20030143196A1
GENERAL INFORMATION:
APPLICANT: Sim, Gek-Kee
APPLICANT: Yang, Shumin
APPLICANT: Dreitz, Matthew J.
APPLICANT: Wonderling, Ramani S.
TITLE OF INVENTION: CANINE AND FELINE IMMUNOREGULATORY PROTEINS, NUCLEIC
FILE REFERENCE: IM-2-C2
CURRENT APPLICATION NUMBER: US/10/262,439

Qy 1 TTGCTGTAGAAAATCCCATGATAGACTGGTGCAGAGACCTTGACACTGCTCCACT 60
Db 58 TTGCTGTAGAAAATCCCATGATAGACTGGTGCAGAGACCTTGACACTGCTCCACT 117
Qy 61 CATGAACTTGCTGTATAGGCGATGGAACTGATGATTCCTACTCCTGAAATATAAT 120
Db 118 CATGAACTTGCTGTATAGGCGATGGAACTGATGATTCCTACTCCTGAAATATAAT 177
Qy 121 CACCACTGTGCTATTAAGAAATTTTTCAGGGTATAGACATTTGAAGAACCAACTGCC 180
Db 178 CACCACTGTGCTATTAAGAAATTTTTCAGGGTATAGACATTTGAAGAACCAACTGCC 237
Qy 181 CACGGGAGGCTGTGATTAACCTATTCCTTAATAAAGAAACACATAGAG 240
Db 238 CACGGGAGGCTGTGATTAACCTATTCCTTAATAAAGAAACACATAGAG 297
Qy 241 CGCGAAAAAAGGTGTGCAGAGAAAGATGAGAGTCAAAAGTTCCTAGACTACCTG 300
Db 298 CGCGAAAAAAGGTGTGCAGAGAAAGATGAGAGTCAAAAGTTCCTAGACTACCTG 357
Qy 301 CAAGTATTTCTTGTTGTAATAAACCAGGATGGACACCGGAAAGT 345
Db 358 CAAGTATTTCTTGTTGTAATAAACCAGGATGGACACCGGAAAGT 402

RESULT 14

US-10-262-439-84/C
Sequence 84, Application US/10262439
Publication No. US20030143196A1
GENERAL INFORMATION:
APPLICANT: Sim, Gek-Kee
APPLICANT: Yang, Shumin
APPLICANT: Dreitz, Matthew J.
APPLICANT: Wonderling, Ramani S.
TITLE OF INVENTION: CANINE AND FELINE IMMUNOREGULATORY PROTEINS, NUCLEIC
FILE REFERENCE: IM-2-C2
CURRENT APPLICATION NUMBER: US/10/262,439
CURRENT FILING DATE: 2002-09-30
PRIOR APPLICATION NUMBER: US/09/451,527
PRIOR FILING DATE: 1999-12-01
PRIOR APPLICATION NUMBER: 09/322,409
PRIOR FILING DATE: 1999-05-28
PRIOR APPLICATION NUMBER: 60/087,306
NUMBER OF SEQ ID NOS: 174
SOFTWARE: PatentIn Ver. 2.0
SEQ ID NO 84
LENGTH: 402
TYPE: DNA
ORGANISM: Canis familiaris
US-10-262-439-84

Query Match 100.0%; Score 345; DB 15; Length 402;

Best Local Similarity 100.0%; Pred. No. 3e-172;
Matches 345; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

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Oy 1 TTTGCTGTAGAAAATCCCATGATAGACTGTGGCAGAGACCTTGACACTGCTCCACT 60
Db 345 TTTGCTGTAGAAAATCCCATGATAGACTGTGGCAGAGACCTTGACACTGCTCCACT 286
Oy 61 CATGAACTTGCTGTAGATAGCGATGGAACTGATGATTCCTACTCCTGAAATATAAT 120
Db 285 CATGAACTTGCTGTAGATAGCGATGGAACTGATGATTCCTACTCCTGAAATATAAT 226
Oy 121 CACCAACTGTGCATTTAAAGAGTTTTCAGGGTATAGACACATTGAGAACCAACTGCC 180
Db 225 CACCAACTGTGCATTTAAAGAGTTTTCAGGGTATAGACACATTGAGAACCAACTGCC 166
Oy 181 CACGGGGAGGCTGTGATTAACCTATTCGAAAATTGCTTTAATAAAGAACACATAGAG 240
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Oy 241 CGCCAAAAAAGAGTGTGACGAGAAAGATGAGAGTGCACAAAGTTCCTAGACTACTG 300
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Oy 301 CAAGTATTTCTTGCTGTATTAACACCGAGTGCACCGGAAAGT 345
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RESULT 15

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US-10-787-382-7
; Sequence 7, Application US/10787382
; Publication No. US20040191868A1
; GENERAL INFORMATION:
; APPLICANT: Yang, Shumin
; APPLICANT: McCall, Catherine A.
; APPLICANT: Weber, Eric R.
; TITLE OF INVENTION: CANINE AND FELINE IMMUNOREGULATORY PROTEINS, NUCLEIC
; FILE REFERENCE: IM-2-C1-C1
; CURRENT APPLICATION NUMBER: US/10/787,382
; CURRENT FILING DATE: 2004-02-24
; PRIOR APPLICATION NUMBER: US/09/755,633
; PRIOR FILING DATE: 2001-01-05
; PRIOR APPLICATION NUMBER: 09/322,409
; PRIOR FILING DATE: 1999-05-28
; PRIOR APPLICATION NUMBER: 60/087,306
; PRIOR FILING DATE: 1998-05-29
; NUMBER OF SEQ ID NOS: 21
; SOFTWARE: PatentIn Ver. 2.1
; SEQ ID NO 7
; LENGTH: 402
; TYPE: DNA
; ORGANISM: Canis familiaris
US-10-787-382-7
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Query Match 100.0%; Score 345; DB 19; Length 402;
Best Local Similarity 100.0%; Pred. No. 3e-172;
Matches 345; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

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Oy 1 TTTGCTGTAGAAAATCCCATGATAGACTGTGGCAGAGACCTTGACACTGCTCCACT 60
Db 58 TTTGCTGTAGAAAATCCCATGATAGACTGTGGCAGAGACCTTGACACTGCTCCACT 117
Oy 61 CATGAACTTGCTGTAGATAGCGATGGAACTGATGATTCCTACTCCTGAAATATAAT 120
Db 118 CATGAACTTGCTGTAGATAGCGATGGAACTGATGATTCCTACTCCTGAAATATAAT 177
Oy 121 CACCAACTGTGCATTTAAAGAGTTTTCAGGGTATAGACACATTGAGAACCAACTGCC 180
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Oy 301 CAAGTATTTCTTGCTGTATTAACACCGAGTGCACCGGAAAGT 345
Db 358 CAAGTATTTCTTGCTGTATTAACACCGAGTGCACCGGAAAGT 402
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GenCore version 5.1.6
Copyright (c) 1993 - 2005 CompuGen Ltd.

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(without alignments)
8965.920 Million cell updates/sec

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Perfect score: 345
Sequence: 1 ttctgctgtagaataatcccat.....ccgagtgacacccgaaagt 345

Scoring table: OLIGO_NUC
Gapop_60.0, Gapext 60.0

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Minimum DB seq length: 0

Maximum DB seq length: 2000000000

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1: gb_est1.*
2: gb_est2.*
3: gb_hic.*
4: gb_est3.*
5: gb_est4.*
6: gb_est5.*
7: gb_est6.*
8: gb_gss1.*
9: gb_gss2.*

Pred. No. is the number of results predicted by chance to have a
score greater than or equal to the score of the result being printed,
and is derived by analysis of the total score distribution.

SUMMARIES

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2	129	37.4	622	9	AY412020 Homo sapi
3	21	6.1	405	9	AY412020 Homo sapi
4	21	6.1	456	3	BC066281 Homo sapi
5	21	6.1	456	3	BC066281 Homo sapi
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24	21	6.1	456	3	BC066281 Homo sapi

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C 26	20	5.8	576	1	AI645939
C 27	20	5.8	620	9	CL385238
C 28	20	5.8	683	9	AG148772
C 29	20	5.8	700	7	CN447619
C 30	20	5.8	802	9	CC922148
C 31	20	5.8	1013	9	CNS03COM
C 32	20	5.8	1063	8	AZ205009
C 33	19	5.5	218	8	CC115803
C 34	19	5.5	293	1	AV258645
C 35	19	5.5	308	4	BG811718
C 36	19	5.5	357	9	CG683296
C 37	19	5.5	376	2	BR428261
C 38	19	5.5	389	8	AQ462483
C 39	19	5.5	405	9	AY412021
C 40	19	5.5	406	6	CB807383
C 41	19	5.5	511	6	CD986398
C 42	19	5.5	538	8	AO562324
C 43	19	5.5	544	9	CC763285
C 44	19	5.5	548	8	AZ122646
C 45	19	5.5	573	8	AQ735965

ALIGNMENTS

RESULT 1
CE331159
LOCUS
DEFINITION
tigr-gss-dog-17000333968658 Dog Library Canis familiaris genomic,
genomic survey sequence.
CE331159
VERSION
CE331159.1 GI:36147469
KEYWORDS
GSS.
SOURCE
Canis familiaris (dog)
ORGANISM
Canis familiaris
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Carnivora; Fissipedia; Canidae; Canis.
REFERENCE
Kirkness, E.F., Bafna, V., Halpern, A.L., Levy, S., Remington, K.,
Rusch, D.B., Delcher, A.L., Pop, M., Wang, W., Fraser, C.M. and
Venter, J.C.
The dog genome: survey sequencing and comparative analysis
Science 301 (5641), 1898-1903 (2003)
MEDLINE
22875432
PUBMED
14512627

COMMENT
Contact: Kirkness EF
The Institute for Genomic Research
Department of Eukaryotic Genomics, TIGR, 9712 Medical Center Drive,
Rockville, MD 20850, USA
Tel: 301-838-0200
Fax: 301-838-0208
Email: ekirknes@tigr.org
Class: shotgun.

FEATURES

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/organism="Canis familiaris"
/mol_type="genomic DNA"
/strain="Standard Poodle"
/db_xref="taxon:9615"
/clone_lib="Dog Library"
/note="Site 1: BatXI; Libraries were prepared from
peripheral blood"

ORIGIN

Query Match 37.4%; Score 129; DB 9; Length 622;
Best local similarity 100.0%; Pred. No. 1.2e-56;
Matches 129; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 121 CACCACTGTCATTAAAGAGTTCAGGCTATGACACATTGAAGAACCACTGCC 180
DB 42 CACCACTGTCATTAAAGAGTTCAGGCTATGACACATTGAAGAACCACTGCC 101

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Qy 181 CACGGGAGGCTGTGATTAACCTTTCACAACTTGTCTTTAATAAAGAACACATGAG 240
Db 102 CACGGGAGGCTGTGATTAACCTTTCACAACTTGTCTTTAATAAAGAACATAGAG 161
Qy 241 CGCCAAAA 249
Db 162 CGCCAAAA 170

RESULT 2
AY412020
LOCUS 405 bp DNA linear GSS 16-DEC-2003
DEFINITION Homo sapiens IL5 gene, VIRTUAL TRANSCRIPT, partial sequence.
ACCESSION AY412020
VERSION AY412020.1 GI:39767985
KEYWORDS GSS.
SOURCE Homo sapiens (human)
ORGANISM Homo sapiens
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Primates; Catarrhini; Hominiidae; Homo.
REFERENCE
AUTHORS Clark,A.G., Glanowski,S., Nielson,R., Thomas,P., Kejarival,A.,
1 (bases 1 to 405)
Todd,M.A., Tanenbaum,D.M., Civejlo,D.R., Lu,F., Murphy,B.,
Ferrizera,S., Wang,G., Zheng,X.H., White,T.J., Snihsy,J.J.,
Adams,M.D. and Cargill,M.
Direct Submission
Submitted (16-NOV-2003) Celera Genomics, 45 West Gude Drive,
Rockville, MD 20850, USA
This sequence was made by sequencing genomic exons and ordering
them based on alignment.
FEATURES
source
1..405
/organism="Homo sapiens"
/mol_type="genomic DNA"
/db_xref="taxon:9606"
<1..>405
/feature="IL5"
/locus_tag="HCM4418"
gene
locus_tag="HCM4418"

ORIGIN
Query Match 6.1%; Score 21; DB 9; Length 405;
Best Local Similarity 100.0%; Pred.No.13;
Matches 21; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 113 ATAAATCACAACCTGTGCA 133
Db 170 ATAAATCACAACCTGTGCA 190

RESULT 3
BC066281
LOCUS 456 bp mRNA linear HTC 12-FEB-2004
DEFINITION Homo sapiens cDNA clone IMAGE:5971770, containing frame-shift
errors.
ACCESSION BC066281
VERSION BC066281.1 GI:42490969
KEYWORDS HTC.
SOURCE Homo sapiens (human)
ORGANISM Homo sapiens
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Primates; Catarrhini; Hominiidae; Homo.
REFERENCE
1 (bases 1 to 456)
Strausberg,R.L., Feingold,E.A., Grouse,L.H., Derge,J.G.,

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Klauniger,R.D., Collins,F.S., Wagner,L., Shennan,C.M., Schuler,G.D.,
Altschul,S.F., Zeeberg,B., Bueltow,K.H., Schaefer,C.F., Bhat,N.K.,
Hopkins,R.F., Jordan,H., Moore,T., Max,S.I., Wang,J., Hsieh,F.,
Datchenko,L., Marusina,K., Farmer,A.A., Rubin,G.M., Hong,L.,
Stapleton,M., Soares,M.B., Bonaldo,M.F., Casavant,T.L.,
Scheetz,T.E., Brownstein,M.U., Uebin,T.B., Teshlyuk,S.,
Carninci,P., Prange,C., Raha,S.S., Loquellano,N.A., Peters,G.J.,
Abramson,R.D., Mulhany,S.J., Bosak,S.A., McEwan,P.J.,
McKernan,K.J., Malek,J.A., Gunaratne,P.H., Richards,S.,
Worley,K.C., Hale,S., Garcia,A.M., Gay,L.J., Hulyk,S.W.,
Villalon,D.K., Muzny,D.M., Sodergren,E.J., Lu,X., Gibbs,R.A.,
Fahney,J., Helton,E., Kettelman,M., Madan,A., Rodriguez,S.,
Sanchez,A., Whiting,M., Madan,A., Young,A.C., Shevchenko,Y.,
Bouffard,G.G., Blakesley,R.W., Touchman,J.W., Green,E.D.,
Dickson,M.C., Rodriguez,A.C., Grimwood,J., Schmutz,J., Myers,R.M.,
Butterfield,Y.S., Krzywinski,M.I., Skalski,U., Smallus,D.E.,
Schnerch,A., Schein,J.E., Jones,S.J. and Marra,M.A.
Generation and initial analysis of more than 15,000 full-length
human and mouse cDNA sequences
Proc. Natl. Acad. Sci. U.S.A. 99 (26), 16899-16903 (2002)
12477932
2 (bases 1 to 456)
Strausberg,R.
Direct Submission
Submitted (03-FEB-2004) National Institutes of Health, Mammalian
Gene Collection (MGC), Cancer Genomics Office, National Cancer
Institute, 31 Center Drive, Room 11A03, Bethesda, MD 20892-2590,
USA
NIH-MGC Project URL: http://mgc.nci.nih.gov
Contact: MGC help desk
Email: cga@bbs.fda.nih.gov
Tissue Procurement: Narayan Bhat
cDNA Library Preparation: Bhat Laboratory
DNA Sequencing by: Sequencing Group at the Stanford Human Genome
Center, Stanford University School of Medicine, Stanford, CA 94305
Web site: http://www-sngc.stanford.edu
Contact: (Dickson, Mark) mcd@paxil.stanford.edu
Dickson, M., Schmutz, J., Grimwood, J., Rodriguez, A., and Myers,
R. M.
Clone distribution: MGC clone distribution information can be found
through the I.M.A.G.E. Consortium/HLN at: http://image.llnl.gov
Series: IRAC Plate: 172 Row: a Column: 17
This clone was selected for full length sequencing because it
passed the following selection criteria: matched mRNA gi: 28559032
This clone has the following problem: frame shifted.
FEATURES
source
1..456
/organism="Homo sapiens"
/mol_type="mRNA"
/db_xref="taxon:9606"
/clone="IMAGE:5971770"
/tissue_type="PCR rescued clones"
/clone_lib="NIH_MGC_195"
/lab_host="DH10B"
/notes="Vector: pDNR-Dual1"

ORIGIN
Query Match 6.1%; Score 21; DB 3; Length 456;
Best Local Similarity 100.0%; Pred.No.13;
Matches 21; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 113 ATAAATCACAACCTGTGCA 133
Db 193 ATAAATCACAACCTGTGCA 213

RESULT 4
CD559532
LOCUS 456 bp mRNA linear EST 11-JUN-2003
DEFINITION AGENCOURT_14497057 NIH_MGC_195 Homo sapiens cDNA clone
IMAGE:5971772 5', mRNA sequence.

```


ACCESSION CD559532
 VERSION CD559532.1 GI:31585600
 KEYWORDS EST
 SOURCE Homo sapiens (human)
 ORGANISM Homo sapiens
 Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Primates; Catarrhini; Homnidae; Homo.
 REFERENCE 1 (bases 1 to 456)
 AUTHORS NIH-MGC
 TITLE NIH-MGC http://imgc.nci.nih.gov/
 JOURNAL National Institutes of Health, Mammalian Gene Collection (MGC)
 COMMENT Unpublished (1999)
 Contact: Daniela S. Gerhard, Ph.D.
 Office of Cancer Genomics
 National Cancer Institute / NIH
 Bldg. 31 Rm10A07 Bethesda, MD 20892
 Email: cgabs-remail.nih.gov
 Tissue Procurement: Narayan Bhat
 CDNA Library Preparation: Bhat Laboratory
 CDNA Library Arrayed by: The I.M.A.G.E. Consortium (LNL)
 DNA Sequencing by: Agencourt Bioscience Corporation
 Clone distribution: MGC clone distribution information can be found through the I.M.A.G.E. Consortium/LNL at:
 http://image.llnl.gov
 Plate: IRBK1 row: 9 column: 11
 High quality sequence stop: 456.
 Location/Qualifiers
 1..456
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 /db_xref="taxon:9606"
 /clone="IMAGE:6971772"
 /issue_type="mixed"
 /lab_host="DH5A (TI phage-resistant)"
 /note="Vector: pDNR-Dual; Site 1: loxp-Sall; Site 2: loxp-HindIII; Clones from this library have been PCR-amplified using gene-specific primers to contain the complete open reading frame (based on known gene sequences available from NCBI's RefSeq). Template for PCR is cDNA derived from either pooled cytoplasmic polyA RNA from 30 cells lines or pooled total RNA from 10 different tissues (from BD Biosciences/Clontech and Washington University). PCR products are directionally cloned into the loxp sites of the pDNR-dual vector. Library constructed by Dr. Narayan Bhat, Earl Bere III and Hongling Liao (Gene Expression Laboratory, Research Technology Program, SAIC Frederick, NCI-Frederick, Frederick, MD 21702). For information on which gene each clone represents, please visit our anonymous ftp site at
 ftp://image.llnl.gov/image/rearrayed_plates/IRBK.presv.dat
 A Note: this is a NIH_MGC Library."

ORIGIN

Query Match 6.1%; Score 21; DB 6; Length 456;
 Best Local Similarity 100.0%; Pred. No. 13;
 Matches 21; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 113 ATAAATCACCACCTGTGCA 133
 Db 191 ATAAATCACCACCTGTGCA 211

RESULT 5
 CD559686/c
 LOCUS CD559686
 DEFINITION AGENCOURT 14497093 NIH MGC 195 Homo sapiens CDNA clone
 IMAGE:6971772 3', mRNA sequence.
 ACCESSION CD559686
 VERSION CD559686.1 GI:31585754
 KEYWORDS EST
 SOURCE Homo sapiens (human)
 ORGANISM Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;

REFERENCE 1 (bases 1 to 456)
 AUTHORS NIH-MGC
 TITLE NIH-MGC http://imgc.nci.nih.gov/
 JOURNAL National Institutes of Health, Mammalian Gene Collection (MGC)
 COMMENT Unpublished (1999)
 Contact: Daniela S. Gerhard, Ph.D.
 Office of Cancer Genomics
 National Cancer Institute / NIH
 Bldg. 31 Rm10A07 Bethesda, MD 20892
 Email: cgabs-remail.nih.gov
 Tissue Procurement: Narayan Bhat
 CDNA Library Preparation: Bhat Laboratory
 CDNA Library Arrayed by: The I.M.A.G.E. Consortium (LNL)
 DNA Sequencing by: Agencourt Bioscience Corporation
 Clone distribution: MGC clone distribution information can be found through the I.M.A.G.E. Consortium/LNL at:
 http://image.llnl.gov
 Plate: IRBK1 row: 9 column: 11
 High quality sequence stop: 456.
 Location/Qualifiers
 1..456
 /organism="Homo sapiens"
 /mol_type="mRNA"
 /db_xref="taxon:9606"
 /clone="IMAGE:6971772"
 /issue_type="mixed"
 /lab_host="DH5A (TI phage-resistant)"
 /note="Vector: pDNR-Dual; Site 1: loxp-Sall; Site 2: loxp-HindIII; Clones from this library have been PCR-amplified using gene-specific primers to contain the complete open reading frame (based on known gene sequences available from NCBI's RefSeq). Template for PCR is cDNA derived from either pooled cytoplasmic polyA RNA from 30 cells lines or pooled total RNA from 10 different tissues (from BD Biosciences/Clontech and Washington University). PCR products are directionally cloned into the loxp sites of the pDNR-dual vector. Library constructed by Dr. Narayan Bhat, Earl Bere III and Hongling Liao (Gene Expression Laboratory, Research Technology Program, SAIC Frederick, NCI-Frederick, Frederick, MD 21702). For information on which gene each clone represents, please visit our anonymous ftp site at
 ftp://image.llnl.gov/image/rearrayed_plates/IRBK.presv.dat
 A Note: this is a NIH_MGC Library."

ORIGIN

Query Match 6.1%; Score 21; DB 6; Length 456;
 Best Local Similarity 100.0%; Pred. No. 13;
 Matches 21; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 113 ATAAATCACCACCTGTGCA 133
 Db 264 ATAAATCACCACCTGTGCA 244

RESULT 6
 BC066279
 LOCUS BC066279
 DEFINITION Homo sapiens cDNA clone IMAGE:6971768, containing frame-shift errors.
 ACCESSION BC066279
 VERSION BC066279.1 GI:42490901
 KEYWORDS HTC
 SOURCE Homo sapiens (human)
 ORGANISM Homo sapiens
 Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Primates; Catarrhini; Homnidae; Homo.
 REFERENCE 1 (bases 1 to 456)
 AUTHORS Strausberg, R.L., Feingold, E.A., Grouse, L.H., Derge, J.G., Klausner, R.D., Collins, F.S., Wagner, L., Shenmen, C.M., Schuler, G.D., Altschul, S.F., Zeeberg, B., Bueltow, K.H., Schaefer, C.F., Bhat, N.K., Hopkins, R.F., Jordan, H., Moore, T., Max, S.I., Wang, J., Heide, F.,

Diatchenko, L., Marusina, K., Farmer, A.A., Rubin, G.M., Hong, L., Stepieton, M., Soares, M.B., Donald, M.F., Casavant, T.L., Schetz, T.E., Brownstein, M.J., Usdin, T.B., Toshiyuki, S., Carninci, P., Prange, C., Raha, S., Loquellano, N.A., Peters, G.J., Abramson, R.D., Mullany, S.J., Bosak, S.A., McEwan, P.J., McKernan, K.J., Malek, J.A., Gunaratne, P.H., Richards, S., Wray, K.C., Hale, S., Garcia, A.M., Gay, L.J., Huiyk, S.W., Villalon, D.K., Muzny, D.M., Sodergren, E.J., Lu, X., Gibbs, R.A., Sanchez, J., Helton, E., Kettelman, M., Madan, A., Rodriguez, S., Bouffard, G.G., Blakesley, R.W., Touchman, J.W., Green, E.D., Butcher, M.C., Rodriguez, A.C., Grimwood, J., Schmutz, J., Myers, R.M., Scherch, A., Schein, J.E., Jones, S.J. and Marra, M.A. Generation and initial analysis of more than 15,000 full-length human and mouse cDNA sequences

Proc. Natl. Acad. Sci. U.S.A. 99 (26), 16899-16903 (2002)

12477932

2 (bases 1 to 458)

Strausberg, R.

Direct Submission

Submitted (03-FEB-2004) National Institutes of Health, Mammalian Gene Collection (MGC), Cancer Genomics Office, National Cancer Institute, 31 Center Drive, Room 11A03, Bethesda, MD 20892-2550, USA

NIH-MGC Project URL: <http://mgc.nci.nih.gov>

Contact: MGC help desk

Email: cgapsb-remail.nih.gov

Tissue Procurement: Narayan Bhat

CDNA Library Preparation: Bhat Laboratory

CDNA Library Arrayed by: The I.M.A.G.E. Consortium (LNL)

DNA Sequencing by: Sequencing Group at the Stanford Human Genome Center, Stanford University School of Medicine, Stanford, CA 94305

Web site: <http://www-shgc.stanford.edu>

Contact: (Dickson, Mark) mcd@paxil.stanford.edu

Dickson, M., Schmutz, J., Grimwood, J., Rodriguez, A., and Myers, R. M.

Clone distribution: MGC clone distribution information can be found through the I.M.A.G.E. Consortium/LNL at: <http://image.llnl.gov>

Series: IRAC Plate: 172 Row: a Column: 15

This clone was selected for full length sequencing because it passed the following selection criteria: matched mRNA gi: 28559032

This clone has the following problem: frame shifted.

Location/Qualifiers

1. .458

/organism="Homo sapiens"

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/clone="IMAGE:6971768"

/tissue_type="PCR rescued clones"

/clone_id="NIH_MGC_195"

/lab_host="DH10B"

/note="Vector: pDNR-Dual"

ORIGIN

Query Match 6.1%; Score 21; DB 3; Length 458;

Best Local Similarity 100.0%; Pred. No. 13;

Matches 21; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 113 ATAAATACCACTGTGCA 133

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Db 193 ATAAATACCACTGTGCA 213

|||||

RESULT 7

BC066280 458 bp mRNA linear HTC 12-FEB-2004

DEFINITION Homo sapiens cDNA clone IMAGE:6971769, containing frame-shift errors.

ACCESSION BC066280

VERSION BC066280.1 GI:42490838

KEYWORDS HTC.

SOURCE

ORGANISM

Homo sapiens (human)

REFERENCE

AUTHORS

Strausberg, R.L., Peingold, E.A., Grouse, L.H., Dege, J.G., Klausner, R.D., Collins, F.S., Wagner, L., Schmen, C.M., Schuler, G.D., Altschul, S.F., Zeeberg, B., Buetow, K.H., Schaefer, C.F., Bhat, N.K., Hopkins, R.F., Jordan, H., Moore, T., Max, S.I., Wang, J., Hsieh, F., Diatchenko, L., Marusina, K., Farmer, A.A., Rubin, G.M., Hong, L., Stepieton, M., Soares, M.B., Donald, M.F., Casavant, T.L., Schetz, T.E., Brownstein, M.J., Usdin, T.B., Toshiyuki, S., Carninci, P., Prange, C., Raha, S., Loquellano, N.A., Peters, G.J., Abramson, R.D., Mullany, S.J., Bosak, S.A., McEwan, P.J., McKernan, K.J., Malek, J.A., Gunaratne, P.H., Richards, S., Wray, K.C., Hale, S., Garcia, A.M., Gay, L.J., Huiyk, S.W., Villalon, D.K., Muzny, D.M., Sodergren, E.J., Lu, X., Gibbs, R.A., Sanchez, J., Helton, E., Kettelman, M., Madan, A., Rodriguez, S., Bouffard, G.G., Blakesley, R.W., Touchman, J.W., Green, E.D., Dickson, M.C., Rodriguez, A.C., Grimwood, J., Schmutz, J., Myers, R.M., Butcher, M.C., Krzywinski, M.I., Skalska, U., Smallus, D.E., Scherch, A., Schein, J.E., Jones, S.J. and Marra, M.A. Generation and initial analysis of more than 15,000 full-length human and mouse cDNA sequences

Proc. Natl. Acad. Sci. U.S.A. 99 (26), 16899-16903 (2002)

12477932

2 (bases 1 to 458)

Strausberg, R.

Direct Submission

Submitted (03-FEB-2004) National Institutes of Health, Mammalian Gene Collection (MGC), Cancer Genomics Office, National Cancer Institute, 31 Center Drive, Room 11A03, Bethesda, MD 20892-2550, USA

NIH-MGC Project URL: <http://mgc.nci.nih.gov>

Contact: MGC help desk

Email: cgapsb-remail.nih.gov

Tissue Procurement: Narayan Bhat

CDNA Library Preparation: Bhat Laboratory

CDNA Library Arrayed by: The I.M.A.G.E. Consortium (LNL)

DNA Sequencing by: Sequencing Group at the Stanford Human Genome Center, Stanford University School of Medicine, Stanford, CA 94305

Web site: <http://www-shgc.stanford.edu>

Contact: (Dickson, Mark) mcd@paxil.stanford.edu

Dickson, M., Schmutz, J., Grimwood, J., Rodriguez, A., and Myers, R. M.

Clone distribution: MGC clone distribution information can be found through the I.M.A.G.E. Consortium/LNL at: <http://image.llnl.gov>

Series: IRAC Plate: 172 Row: a Column: 16

This clone was selected for full length sequencing because it passed the following selection criteria: matched mRNA gi: 28559032

This clone has the following problem: frame shifted.

Location/Qualifiers

1. .458

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/db_xref="taxon:9606"

/clone="IMAGE:6971769"

/tissue_type="PCR rescued clones"

/clone_id="NIH_MGC_195"

/lab_host="DH10B"

/note="Vector: pDNR-Dual"

ORIGIN

Query Match 6.1%; Score 21; DB 3; Length 458;

Best Local Similarity 100.0%; Pred. No. 13;

Matches 21; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 113 ATAAATACCACTGTGCA 133

|||||

Db 193 ATAAATACCACTGTGCA 213

|||||

RESULT 8
CD559688
LOCUS
DEFINITION AGENCOURT_14496865 NIH_MGC_195 Homo sapiens cDNA clone
IMAGE:6971769 5', mRNA sequence.
ACCESSION CD559688
VERSION CD559688
KEYWORDS GI:38558950
SOURCE
ORGANISM Homo sapiens (human)
REFERENCE Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Primates; Catarrhini; Homidae; Homo.
AUTHORS NIH-MGC http://mgi.nci.nih.gov/
TITLE National Institutes of Health, Mammalian Gene Collection (MGC)
JOURNAL Unpublished (1999)
COMMENT On Jun 10, 2003 this sequence version replaced gi:31585603.
Contact: Daniela S. Gerhard, Ph.D.
Office of Cancer Genomics
National Cancer Institute / NIH
Bldg. 31 Rm10A07 Bethesda, MD 20892
Email: cgabs-remail.nih.gov
Tissue Procurement: Narayan Bhat
cDNA Library Preparation: Bhat Laboratory
DNA Sequencing by: Agencourt Bioscience Corporation
Clone distribution: MGC clone distribution information can be
found through the I.M.A.G.E. Consortium/LNL at:
http://image.llnl.gov
Plate: IRBK1 row: 9 column: 08
High quality sequence stop: 463.
Location/Qualifiers
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/organism="Homo sapiens"
/mol_type="mRNA"
/db_xref="taxon:9606"
/clone="IMAGE:6971769"
/tissue_type="mixed"
/lab_host="DH5A (TI phage-resistant)"
/clone_id="NIH_MGC_195"
/note="Vector: pDNR-Dual; Site 1: loxp-Sall; Site 2:
loxP-HindIII; Clones from this library have been
PCR-amplified using gene-specific primers to contain the
complete open reading frame (based on known gene sequences
available from NCBI's RefSeq). Template for PCR is cDNA
derived from either pooled cytoplasmic polyA RNA from 30
cells lines or pooled total RNA from 10 different tissues
(from BD Biosciences/Clontech and Washington University).
PCR products are directionally cloned into the loxp sites
of the pDNR-dual vector. Library constructed by Dr.
Narayan Bhat, Earl Bere III and Hongling Liao (Gene
Expression Laboratory, Research Technology Program, SAIC
Frederick, NCI-Frederick, Frederick, MD 21702). For
information on which gene each clone represents, please
visit our anonymous ftp site at
ftp://image.llnl.gov/image/rearrayed_plates/IRBK.presv.dat
a Note: this is a NIH_MGC Library."

ORIGIN
Query Match 6.1%; Score 21; DB 6; Length 463;
Best Local Similarity 100.0%; Pred. No. 13;
Matches 21; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

OY 113 ATAAATCACCACACTGTGCA 133
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Db 197 ATAAATCACCACACTGTGCA 217

RESULT 9
CD559688
LOCUS
DEFINITION AGENCOURT_14496864 NIH_MGC_195 Homo sapiens cDNA clone
IMAGE:6971768 5', mRNA sequence.
ACCESSION CD559688
VERSION CD559688
KEYWORDS GI:38558950
SOURCE
ORGANISM Homo sapiens (human)
REFERENCE Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Primates; Catarrhini; Homidae; Homo.
AUTHORS NIH-MGC http://mgi.nci.nih.gov/
TITLE National Institutes of Health, Mammalian Gene Collection (MGC)
JOURNAL Unpublished (1999)
COMMENT On Jun 10, 2003 this sequence version replaced gi:31585603.
Contact: Daniela S. Gerhard, Ph.D.
Office of Cancer Genomics
National Cancer Institute / NIH
Bldg. 31 Rm10A07 Bethesda, MD 20892
Email: cgabs-remail.nih.gov
Tissue Procurement: Narayan Bhat
cDNA Library Preparation: Bhat Laboratory
DNA Sequencing by: Agencourt Bioscience Corporation
Clone distribution: MGC clone distribution information can be
found through the I.M.A.G.E. Consortium/LNL at:
http://image.llnl.gov
Plate: IRBK1 row: 9 column: 09
High quality sequence start: 11
High quality sequence stop: 467.
Location/Qualifiers
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/organism="Homo sapiens"
/mol_type="mRNA"
/db_xref="taxon:9606"
/clone="IMAGE:6971770"
/tissue_type="mixed"
/lab_host="DH5A (TI phage-resistant)"
/clone_id="NIH_MGC_195"
/note="Vector: pDNR-Dual; Site 1: loxp-Sall; Site 2:
loxP-HindIII; Clones from this library have been
PCR-amplified using gene-specific primers to contain the
complete open reading frame (based on known gene sequences
available from NCBI's RefSeq). Template for PCR is cDNA
derived from either pooled cytoplasmic polyA RNA from 30
cells lines or pooled total RNA from 10 different tissues
(from BD Biosciences/Clontech and Washington University).
PCR products are directionally cloned into the loxp sites
of the pDNR-dual vector. Library constructed by Dr.
Narayan Bhat, Earl Bere III and Hongling Liao (Gene
Expression Laboratory, Research Technology Program, SAIC
Frederick, NCI-Frederick, Frederick, MD 21702). For
information on which gene each clone represents, please
visit our anonymous ftp site at
ftp://image.llnl.gov/image/rearrayed_plates/IRBK.presv.dat
a Note: this is a NIH_MGC Library."

ORIGIN
Query Match 6.1%; Score 21; DB 6; Length 467;
Best Local Similarity 100.0%; Pred. No. 13;
Matches 21; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

OY 113 ATAAATCACCACACTGTGCA 133
|||||
Db 274 ATAAATCACCACACTGTGCA 254

ACCESSION IMAGE:6971770 5', mRNA sequence.
CD559688
VERSION CD559688
KEYWORDS GI:38453466
SOURCE
ORGANISM Homo sapiens (human)
REFERENCE Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Primates; Catarrhini; Homidae; Homo.
AUTHORS NIH-MGC http://mgi.nci.nih.gov/
TITLE National Institutes of Health, Mammalian Gene Collection (MGC)
JOURNAL Unpublished (1999)
COMMENT On Jun 10, 2003 this sequence version replaced gi:31585756.
Contact: Daniela S. Gerhard, Ph.D.
Office of Cancer Genomics
National Cancer Institute / NIH
Bldg. 31 Rm10A07 Bethesda, MD 20892
Email: cgabs-remail.nih.gov
Tissue Procurement: Narayan Bhat
cDNA Library Preparation: Bhat Laboratory
DNA Sequencing by: Agencourt Bioscience Corporation
Clone distribution: MGC clone distribution information can be
found through the I.M.A.G.E. Consortium/LNL at:
http://image.llnl.gov
Plate: IRBK1 row: 9 column: 09
High quality sequence start: 11
High quality sequence stop: 467.
Location/Qualifiers
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/organism="Homo sapiens"
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/clone="IMAGE:6971770"
/tissue_type="mixed"
/lab_host="DH5A (TI phage-resistant)"
/clone_id="NIH_MGC_195"
/note="Vector: pDNR-Dual; Site 1: loxp-Sall; Site 2:
loxP-HindIII; Clones from this library have been
PCR-amplified using gene-specific primers to contain the
complete open reading frame (based on known gene sequences
available from NCBI's RefSeq). Template for PCR is cDNA
derived from either pooled cytoplasmic polyA RNA from 30
cells lines or pooled total RNA from 10 different tissues
(from BD Biosciences/Clontech and Washington University).
PCR products are directionally cloned into the loxp sites
of the pDNR-dual vector. Library constructed by Dr.
Narayan Bhat, Earl Bere III and Hongling Liao (Gene
Expression Laboratory, Research Technology Program, SAIC
Frederick, NCI-Frederick, Frederick, MD 21702). For
information on which gene each clone represents, please
visit our anonymous ftp site at
ftp://image.llnl.gov/image/rearrayed_plates/IRBK.presv.dat
a Note: this is a NIH_MGC Library."

ORIGIN
Query Match 6.1%; Score 21; DB 6; Length 467;
Best Local Similarity 100.0%; Pred. No. 13;
Matches 21; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

OY 113 ATAAATCACCACACTGTGCA 133
|||||
Db 274 ATAAATCACCACACTGTGCA 254

RESULT 10
CD559690
LOCUS
DEFINITION AGENCOURT_14496838 NIH_MGC_195 Homo sapiens cDNA clone
IMAGE:6971768 5', mRNA sequence.
ACCESSION CD559690
VERSION CD559690
KEYWORDS GI:38453490
SOURCE
ORGANISM Homo sapiens (human)
REFERENCE Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Primates; Catarrhini; Homidae; Homo.
AUTHORS NIH-MGC http://mgi.nci.nih.gov/
TITLE National Institutes of Health, Mammalian Gene Collection (MGC)
JOURNAL Unpublished (1999)
COMMENT On Jun 10, 2003 this sequence version replaced gi:31585756.
Contact: Daniela S. Gerhard, Ph.D.
Office of Cancer Genomics
National Cancer Institute / NIH
Bldg. 31 Rm10A07 Bethesda, MD 20892
Email: cgabs-remail.nih.gov
Tissue Procurement: Narayan Bhat
cDNA Library Preparation: Bhat Laboratory
DNA Sequencing by: Agencourt Bioscience Corporation
Clone distribution: MGC clone distribution information can be
found through the I.M.A.G.E. Consortium/LNL at:
http://image.llnl.gov
Plate: IRBK1 row: 9 column: 09
High quality sequence start: 11
High quality sequence stop: 467.
Location/Qualifiers
1..467
/organism="Homo sapiens"
/mol_type="mRNA"
/db_xref="taxon:9606"
/clone="IMAGE:6971770"
/tissue_type="mixed"
/lab_host="DH5A (TI phage-resistant)"
/clone_id="NIH_MGC_195"
/note="Vector: pDNR-Dual; Site 1: loxp-Sall; Site 2:
loxP-HindIII; Clones from this library have been
PCR-amplified using gene-specific primers to contain the
complete open reading frame (based on known gene sequences
available from NCBI's RefSeq). Template for PCR is cDNA
derived from either pooled cytoplasmic polyA RNA from 30
cells lines or pooled total RNA from 10 different tissues
(from BD Biosciences/Clontech and Washington University).
PCR products are directionally cloned into the loxp sites
of the pDNR-dual vector. Library constructed by Dr.
Narayan Bhat, Earl Bere III and Hongling Liao (Gene
Expression Laboratory, Research Technology Program, SAIC
Frederick, NCI-Frederick, Frederick, MD 21702). For
information on which gene each clone represents, please
visit our anonymous ftp site at
ftp://image.llnl.gov/image/rearrayed_plates/IRBK.presv.dat
a Note: this is a NIH_MGC Library."

ORIGIN
Query Match 6.1%; Score 21; DB 6; Length 467;
Best Local Similarity 100.0%; Pred. No. 13;
Matches 21; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

OY 113 ATAAATCACCACACTGTGCA 133
|||||
Db 274 ATAAATCACCACACTGTGCA 254

SOURCE Homo sapiens (human)
ORGANISM Homo sapiens
REFERENCE 1 (bases 1 to 467)
AUTHORS NIH-MGC <http://mgc.nci.nih.gov/>.
TITLE National Institutes of Health, Mammalian Gene Collection (MGC)
JOURNAL Unpublished (1999)
COMMENT On Jun 10, 2003 this sequence version replaced gi:31585758.
Contact: Daniela S. Gerhard, Ph.D.
Office of Cancer Genomics
National Cancer Institute / NIH
Bldg. 31 Rm10A07 Bethesda, MD 20892
Email: CGabbs-remail.nih.gov
Tissue Procurement: Narayan Bhat
CDNA Library Preparation: Bhat Laboratory
CDNA Library Arrayed by: The I.M.A.G.E. Consortium (LNL)
DNA Sequencing by: Agencourt Bioscience Corporation
Clone distribution: MGC clone distribution information can be
found through the I.M.A.G.E. Consortium/LNL at:
<http://image.llnl.gov>
Plate: IRBK1 row: 9 column: 07
High quality sequence stop: 467.
Location/Qualifiers
1..467
/organism="Homo sapiens"
/mol_type="mRNA"
/db_xref="taxon:9606"
/clone="IMAGE:6971768"
/issue_type="mixed"
/lab_host="DH5A (T1 phage-resistant)"
/clone_1lb="NIH MGC 195"
/note="Vector: pDNR-Dual; Site 1: loxp-sall; Site 2:
loxP-HindIII; Clones from this library have been
PCR-amplified using gene-specific primers to contain the
complete open reading frame (based on known gene sequences
available from NCBI's RefSeq). Template for PCR is cDNA
derived from either pooled cytoplasmic polyA RNA from 30
cells lines or pooled total RNA from 10 different tissues
(from BD Biosciences/Clontech and Washington University).
PCR products are directionally cloned into the loxp sites
of the pDNR-Dual vector. Library constructed by Dr.
Narayan Bhat, Earl Bere III and Hongling Liao (Gene
Expression Laboratory, Research Technology Program, SAIC
Frederick, NCI-Frederick, Frederick, MD 21702). For
information on which gene each clone represents, please
visit our anonymous ftp site at
ftp://image.llnl.gov/image/rearrayed_plates/IRBK-presv.dat
a Note: this is a NIH_MGC Library."

ORIGIN
Query Match 6.1%; Score 21; DB 6; Length 467;
Best Local Similarity 100.0%; Pred. No. 13;
Matches 21; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 113 ATAAAAATCACCAACTGTGCA 133
|||||
Db 274 ATAAAAATCACCAACTGTGCA 254

RESULT 11
CD559687/c 470 bp mRNA linear EST 19-NOV-2003
LOCUS AGENCOURT 14497029 NIH_MGC_195 Homo sapiens cDNA clone
DEFINITION IMAGE:6971771 5', mRNA sequence.
ACCESSION CD559687
VERSION CD559687.2 GI:38453484
KEYWORDS EST.
SOURCE Homo sapiens (human)
ORGANISM Homo sapiens
REFERENCE 1 (bases 1 to 470)
AUTHORS NIH-MGC <http://mgc.nci.nih.gov/>.
TITLE National Institutes of Health, Mammalian Gene Collection (MGC)
JOURNAL Unpublished (1999)
COMMENT On Jun 10, 2003 this sequence version replaced gi:31585757.

AUTHORS NIH-MGC <http://mgc.nci.nih.gov/>.
TITLE National Institutes of Health, Mammalian Gene Collection (MGC)
JOURNAL Unpublished (1999)
COMMENT On Jun 10, 2003 this sequence version replaced gi:31585755.
Contact: Daniela S. Gerhard, Ph.D.
Office of Cancer Genomics
National Cancer Institute / NIH
Bldg. 31 Rm10A07 Bethesda, MD 20892
Email: CGabbs-remail.nih.gov
Tissue Procurement: Narayan Bhat
CDNA Library Preparation: Bhat Laboratory
CDNA Library Arrayed by: The I.M.A.G.E. Consortium (LNL)
DNA Sequencing by: Agencourt Bioscience Corporation
Clone distribution: MGC clone distribution information can be
found through the I.M.A.G.E. Consortium/LNL at:
<http://image.llnl.gov>
Plate: IRBK1 row: 9 column: 10
High quality sequence start: 14
High quality sequence stop: 470.
Location/Qualifiers
1..470
/organism="Homo sapiens"
/mol_type="mRNA"
/db_xref="taxon:9606"
/clone="IMAGE:6971771"
/issue_type="mixed"
/lab_host="DH5A (T1 phage-resistant)"
/clone_1lb="NIH MGC 195"
/note="Vector: pDNR-Dual; Site 1: loxp-sall; Site 2:
loxP-HindIII; Clones from this library have been
PCR-amplified using gene-specific primers to contain the
complete open reading frame (based on known gene sequences
available from NCBI's RefSeq). Template for PCR is cDNA
derived from either pooled cytoplasmic polyA RNA from 30
cells lines or pooled total RNA from 10 different tissues
(from BD Biosciences/Clontech and Washington University).
PCR products are directionally cloned into the loxp sites
of the pDNR-Dual vector. Library constructed by Dr.
Narayan Bhat, Earl Bere III and Hongling Liao (Gene
Expression Laboratory, Research Technology Program, SAIC
Frederick, NCI-Frederick, Frederick, MD 21702). For
information on which gene each clone represents, please
visit our anonymous ftp site at
ftp://image.llnl.gov/image/rearrayed_plates/IRBK-presv.dat
a Note: this is a NIH_MGC Library."

ORIGIN
Query Match 6.1%; Score 21; DB 6; Length 470;
Best Local Similarity 100.0%; Pred. No. 13;
Matches 21; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 113 ATAAAAATCACCAACTGTGCA 133
|||||
Db 277 ATAAAAATCACCAACTGTGCA 257

RESULT 12
CD559689 473 bp mRNA linear EST 19-NOV-2003
LOCUS AGENCOURT 14496901 NIH_MGC_195 Homo sapiens cDNA clone
DEFINITION IMAGE:6971769 5', mRNA sequence.
ACCESSION CD559689
VERSION CD559689.2 GI:38453487
KEYWORDS EST.
SOURCE Homo sapiens (human)
ORGANISM Homo sapiens
REFERENCE 1 (bases 1 to 473)
AUTHORS NIH-MGC <http://mgc.nci.nih.gov/>.
TITLE National Institutes of Health, Mammalian Gene Collection (MGC)
JOURNAL Unpublished (1999)
COMMENT On Jun 10, 2003 this sequence version replaced gi:31585757.

Contact: Daniela S. Gerhard, Ph.D.
Office of Cancer Genomics
National Cancer Institute / NIH
Bldg. 31 Rm10A07 Bethesda, MD 20892
Email: cgabs-remail.nih.gov
Tissue Procurement: Narayan Bhat
CDNA Library Preparation: Bhat Laboratory
DNA Library Arrayed by: The I.M.A.G.E. Consortium (LNL)
DNA Sequencing by: Agencourt Bioscience Corporation
Clone distribution: MGC clone distribution information can be
found through the I.M.A.G.E. Consortium/LNL at:
<http://image.llnl.gov>
Plate: IRBK1 row: 9 column: 08
High quality sequence start: 16
High quality sequence stop: 473.

FEATURES

source
1. 473
/organism="Homo sapiens"
/mol_type="mRNA"
/db_xref="taxon:9606"
/clone="IMAGE:6971769"
/tissue_type="mixed"
/lab_host="DH5A (TI phage-resistant)"
/clone_id="NIH_MGC_195"
/notes="Vector: pDNR-Dual; Site 1: loxp-Sall; Site 2:
loxP-HindIII; Clones from this library have been
PCR-amplified using gene-specific primers to contain the
complete open reading frame (based on known gene sequences
available from NCBI's RefSeq). Template for PCR is cDNA
derived from either pooled cytoplasmic polyA RNA from 30
cells lines or pooled total RNA from 10 different tissues
(from BD Biosciences/Clontech and Washington University).
PCR products are directionally cloned into the loxp sites
of the pDNR-Dual vector. Library constructed by Dr.
Narayan Bhat, Earl Bere III and Hongling Liao (Gene
Expression Laboratory, Research Technology Program, SAIC
Frederick, NCI-Frederick, Frederick, MD 21702). For
information on which gene each clone represents, please
visit our anonymous ftp site at
ftp://image.llnl.gov/image/rearrayed_plates/IRBK.presv.dat
a Note: this is a NIH_MGC Library."

ORIGIN

Query Match 6.1%; Score 21; DB 6; Length 473;
Best Local Similarity 100.0%; Pred. No. 13;
Matches 21; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

OY 113 ATAAATCAGCACTGTGCA 133
|||||
Db 280 ATAAATCAGCACTGTGCA 260

RESULT 13
CD559608 477 bp mRNA linear EST 26-NOV-2003
LOCUS AGENCOURT_14496997 NIH_MGC_195 Homo sapiens cDNA clone
DEFINITION IMAGE:6971769 5', mRNA sequence.
ACCESSION CD559608 GI:38558942
VERSION
KEYWORDS
SOURCE Homo sapiens (human)
ORGANISM Homo sapiens
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Primates; Catarrhini; Homnidae; Homo.
REFERENCE 1 (bases 1 to 477)
AUTHORS NIH-MGC <http://mgi.nci.nih.gov/>.
TITLE National Institutes of Health, Mammalian Gene Collection (MGC)
JOURNAL Unpublished (1999)
COMMENT On Jun 10, 2003 this sequence version replaced gi:31585676.
Contact: Daniela S. Gerhard, Ph.D.
Office of Cancer Genomics
National Cancer Institute / NIH
Bldg. 31 Rm10A07 Bethesda, MD 20892

Email: cgabs-remail.nih.gov
Tissue Procurement: Narayan Bhat
CDNA Library Preparation: Bhat Laboratory
DNA Library Arrayed by: The I.M.A.G.E. Consortium (LNL)
DNA Sequencing by: Agencourt Bioscience Corporation
Clone distribution: MGC clone distribution information can be
found through the I.M.A.G.E. Consortium/LNL at:
<http://image.llnl.gov>
Plate: IRBK2 row: 9 column: 10
High quality sequence start: 107
High quality sequence stop: 353.

FEATURES

source
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/organism="Homo sapiens"
/mol_type="mRNA"
/db_xref="taxon:9606"
/clone="IMAGE:6971867"
/tissue_type="mixed"
/lab_host="DH5A (TI phage-resistant)"
/clone_id="NIH_MGC_195"
/notes="Vector: pDNR-Dual; Site 1: loxp-Sall; Site 2:
loxP-HindIII; Clones from this library have been
PCR-amplified using gene-specific primers to contain the
complete open reading frame (based on known gene sequences
available from NCBI's RefSeq). Template for PCR is cDNA
derived from either pooled cytoplasmic polyA RNA from 30
cells lines or pooled total RNA from 10 different tissues
(from BD Biosciences/Clontech and Washington University).
PCR products are directionally cloned into the loxp sites
of the pDNR-Dual vector. Library constructed by Dr.
Narayan Bhat, Earl Bere III and Hongling Liao (Gene
Expression Laboratory, Research Technology Program, SAIC
Frederick, NCI-Frederick, Frederick, MD 21702). For
information on which gene each clone represents, please
visit our anonymous ftp site at
ftp://image.llnl.gov/image/rearrayed_plates/IRBK.presv.dat
a Note: this is a NIH_MGC Library."

ORIGIN

Query Match 6.1%; Score 21; DB 6; Length 477;
Best Local Similarity 100.0%; Pred. No. 13;
Matches 21; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

OY 113 ATAAATCAGCACTGTGCA 133
|||||
Db 210 ATAAATCAGCACTGTGCA 230

RESULT 14
CD559534 478 bp mRNA linear EST 26-NOV-2003
LOCUS AGENCOURT_14496928 NIH_MGC_195 Homo sapiens cDNA clone
DEFINITION IMAGE:6971770 5', mRNA sequence.
ACCESSION CD559534
VERSION
KEYWORDS
SOURCE Homo sapiens (human)
ORGANISM Homo sapiens
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Primates; Catarrhini; Homnidae; Homo.
REFERENCE 1 (bases 1 to 478)
AUTHORS NIH-MGC <http://mgi.nci.nih.gov/>.
TITLE National Institutes of Health, Mammalian Gene Collection (MGC)
JOURNAL Unpublished (1999)
COMMENT On Jun 10, 2003 this sequence version replaced gi:31585602.
Contact: Daniela S. Gerhard, Ph.D.
Office of Cancer Genomics
National Cancer Institute / NIH
Bldg. 31 Rm10A07 Bethesda, MD 20892
Email: cgabs-remail.nih.gov
Tissue Procurement: Narayan Bhat
CDNA Library Preparation: Bhat Laboratory
DNA Library Arrayed by: The I.M.A.G.E. Consortium (LNL)

DNA Sequencing by: Agencourt Bioscience Corporation
 Clone distribution: MGC clone distribution information can be
 found through the I.M.A.G.E. Consortium/LNL at:
<http://image.llnl.gov>
 Plate: IRBK1 row: 9 column: 09
 High quality sequence start: 3
 High quality sequence stop: 478.
 Location/Qualifiers

FEATURES

source

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/mol_type="mRNA"
/db_xref="taxon:9606"
/clone="IMAGE:6971770"
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/lab_host="DH5A (T1 phage-resistant)"
/notes="Vector: pDNR-Dual, Site 1: loxp-Sall, Site 2:
loxP-HindIII; Clones from this library have been
PCR-amplified using gene-specific primers to contain the
complete open reading frame (based on known gene sequences
available from NCBI's RefSeq). Template for PCR is cDNA
derived from either pooled cytoplasmic polyA RNA from 30
cells lines or pooled total RNA from 10 different tissues
(from BD Biosciences/Clontech and Washington University).
PCR products are directionally cloned into the loxp sites
of the pDNR-Dual vector. Library constructed by Dr.
Narayan Bhat, Earl Bere III and Hongling Liao (Gene
Expression Laboratory, Research Technology Program, SAIC
Frederick, NCI-Frederick, Frederick, MD 21702). For
information on which gene each clone represents, please
visit our anonymous ftp site at
ftp://image.llnl.gov/image/rearranged_plates/IRBK.presv.dat
a Note: this is a NIH_MGC Library."
```

ORIGIN

Query Match 6.1%; Score 21; DB 6; Length 478;
 Best Local Similarity 100.0%; Pred. No. 13;
 Matches 21; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

113 ATAAATCACCACCTGTGCA 133
 ||||||||||||||||
 214 ATAAATCACCACCTGTGCA 214

RESULT 15
 CD559536 489 bp mRNA linear EST 26-NOV-2003
 LOCUS ABENCCURT14496804 NIH_MGC_195 Homo sapiens cDNA clone
 DEFINITION IMAGE:6971768 5', mRNA sequence.
 ACCESSION CD559536
 VERSION CD559536.2 GI:38558953
 KEYWORDS EST.
 SOURCE Homo sapiens (human)
 ORGANISM Homo sapiens
 Eukaryota; Metazoa; Chordata; Vertebrata; Euteleostomi;
 Mammalia; Eutheria; Primates; Catarrhini; Homiidae; Homo.
 1 (bases 1 to 489)
 NIH-MGC <http://mgs.nci.nih.gov/>.
 National Institutes of Health, Mammalian Gene Collection (MGC)
 Unpublished (1999)
 On Jun 10, 2003 this sequence version replaced gi:31585604.
 Contact: Daniela S. Gerhard, Ph.D.
 Office of Cancer Genomics
 National Cancer Institute / NIH
 Bldg. 31 Rm10A07 Bethesda, MD 20892
 Email: cgabs-remail.nih.gov
 Tissue Procurement: Narayan Bhat
 cDNA Library Preparation: Bhat Laboratory
 cDNA Library Arrayed by: The I.M.A.G.E. Consortium (LNL)
 DNA Sequencing by: Agencourt Bioscience Corporation
 Clone distribution: MGC clone distribution information can be
 found through the I.M.A.G.E. Consortium/LNL at:
<http://image.llnl.gov>

Plate: IRBK1 row: 9 column: 07
 High quality sequence start: 17
 High quality sequence stop: 489.
 Location/Qualifiers

FEATURES

source

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1. 489
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/mol_type="mRNA"
/db_xref="taxon:9606"
/clone="IMAGE:6971768"
/tissue_type="mixed"
/lab_host="DH5A (T1 phage-resistant)"
/clone_1lb="NIH_MGC_195"
/notes="Vector: pDNR-Dual, Site 1: loxp-Sall, Site 2:
loxP-HindIII; Clones from this library have been
PCR-amplified using gene-specific primers to contain the
complete open reading frame (based on known gene sequences
available from NCBI's RefSeq). Template for PCR is cDNA
derived from either pooled cytoplasmic polyA RNA from 30
cells lines or pooled total RNA from 10 different tissues
(from BD Biosciences/Clontech and Washington University).
PCR products are directionally cloned into the loxp sites
of the pDNR-Dual vector. Library constructed by Dr.
Narayan Bhat, Earl Bere III and Hongling Liao (Gene
Expression Laboratory, Research Technology Program, SAIC
Frederick, NCI-Frederick, Frederick, MD 21702). For
information on which gene each clone represents, please
visit our anonymous ftp site at
ftp://image.llnl.gov/image/rearranged_plates/IRBK.presv.dat
a Note: this is a NIH_MGC Library."
```

ORIGIN

Query Match 6.1%; Score 21; DB 6; Length 489;
 Best Local Similarity 100.0%; Pred. No. 13;
 Matches 21; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

113 ATAAATCACCACCTGTGCA 133
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 223 ATAAATCACCACCTGTGCA 243

Search completed: August 9, 2005, 00:13:23
 Job time : 1468.68 sec

GenCore version 5.1.6
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OM nucleic - nucleic search, using sw model

Run on: August 7, 2005, 08:50:30 ; Search time 70.2587 Seconds
(without alignments)
8034.812 Million cell updates/sec

Title: US-10-787-382-9

Perfect score: 345
Sequence: 1 ttctgcgtgagaatcccat.....ccgagtcgaccgcgaagt 345

Scoring table: IDENTITY NUC
Gapop 10.0 , Gapext 1.0

Searched: 1202784 seqs, 818138359 residues

Total number of hits satisfying chosen parameters: 2405568

Minimum DB seq length: 0
Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%
Maximum Match 100%

Listing first 45 summaries

Database :

1: Issued_Patents_NA.*
2: /cgn2_6/ptodata/1/ina/5A_COMB.seq.*
3: /cgn2_6/ptodata/1/ina/5B_COMB.seq.*
4: /cgn2_6/ptodata/1/ina/6A_COMB.seq.*
5: /cgn2_6/ptodata/1/ina/6B_COMB.seq.*
6: /cgn2_6/ptodata/1/ina/backfill1.seq.*

Pred. No. is the number of results predicted by chance to have a
score greater than or equal to the score of the result being printed,
and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	Query Match	Length	DB ID	Description
1	345	100.0	345	4	US-09-322-409-85
2	345	100.0	345	4	US-09-322-409-87
3	345	100.0	345	4	US-09-451-527-85
4	345	100.0	345	4	US-09-451-527-87
5	345	100.0	402	4	US-09-322-409-83
6	345	100.0	402	4	US-09-322-409-84
7	345	100.0	402	4	US-09-451-527-83
8	345	100.0	402	4	US-09-451-527-84
9	345	100.0	610	4	US-09-322-409-80
10	345	100.0	610	4	US-09-322-409-82
11	345	100.0	610	4	US-09-451-527-80
12	345	100.0	610	4	US-09-451-527-82
13	341.8	99.1	405	4	US-09-371-615A-1
14	231.4	67.1	816	3	US-09-079-839-2
15	229.8	66.6	816	4	US-09-023-655-1236
16	206	59.7	377	3	US-08-629-643A-4
17	196.4	56.9	1534	3	US-09-155-884-4
18	186.4	56.9	1534	3	US-09-155-884-4
19	178.4	51.7	375	4	US-09-556-818-33
20	175.6	50.9	357	4	US-09-556-818-35
21	169.2	49.0	381	4	US-09-556-818-27
22	166.4	48.2	399	4	US-09-556-818-39
23	166	48.1	444	4	US-09-556-818-43
24	165.6	48.0	375	4	US-09-556-818-37
25	161.6	46.8	393	4	US-09-556-818-41
26	160.4	46.5	393	4	US-09-556-818-31
27	159.2	46.1	375	4	US-09-556-818-29

28	148.4	43.0	351	4	US-09-556-818-51	Sequence 51, Appl
29	145	42.0	393	4	US-09-556-818-55	Sequence 55, Appl
30	144.8	42.0	375	4	US-09-556-818-45	Sequence 45, Appl
31	144.8	42.0	438	4	US-09-556-818-59	Sequence 59, Appl
32	141.8	41.1	387	4	US-09-556-818-57	Sequence 57, Appl
33	140.8	40.8	369	4	US-09-556-818-53	Sequence 53, Appl
34	125.6	36.4	359	4	US-09-556-818-47	Sequence 47, Appl
35	123.6	35.8	387	4	US-09-556-818-49	Sequence 49, Appl
36	90.6	26.3	6727	3	US-08-629-643A-5	Sequence 5, Appl
37	90.6	26.3	6727	3	US-08-280-799-1	Sequence 1, Appl
38	90.6	26.3	6727	3	US-09-155-884-5	Sequence 5, Appl
39	90.2	26.1	3230	3	US-09-280-799-78	Sequence 78, Appl
40	90.2	26.1	3230	6	5324640-1	Patent No. 5324640
41	90.2	26.1	3230	6	5324640-1	Patent No. 5324640
42	38	11.0	7218	1	US-08-232-463-14	Sequence 14, Appl
43	35	10.1	6837	4	US-09-573-080A-37	Sequence 37, Appl
44	34.8	10.1	50563	4	US-09-949-016-15821	Sequence 15821, A
45	34.6	10.0	636	4	US-09-248-796A-8266	Sequence 8266, Ap

ALIGNMENTS

```
RESULT 1
US-09-322-409-85
Sequence 85, Application US/09322409
Patent No. 6471957
GENERAL INFORMATION:
APPLICANT: Sim, Gek-Ke
APPLICANT: Yang, Shumun
APPLICANT: Drelitz, Matthew J.
APPLICANT: Wonderling, Ramani S.
TITLE OF INVENTION: CANINE AND FELINE IMMUNOREGULATORY PROTEINS, NUCLEIC
FILE REFERENCE: IM-2-C1
CURRENT APPLICATION NUMBER: US/09/322,409
CURRENT FILING DATE: 1999-05-28
EARLIER APPLICATION NUMBER: 60/087,306
EARLIER FILING DATE: 1998-05-29
NUMBER OF SEQ ID NOS: 154
SOFTWARE: Patent In Ver. 2.0
SEQ ID NO 85
LENGTH: 345
TYPE: DNA
ORGANISM: Canis familiaris
FEATURES:
NAME/KEY: CDS
LOCATION: (1)..(345)
US-09-322-409-85

Query Match 100.0%; Score 345; DB 4; Length 345;
Best Local Similarity 100.0%; Pred. No. 8.4e-101;
Matches 345; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 TTTCCTAGAGAAATCCCATGATAGACTGGTGACAGACTTGACACTGCTCCACT 60
Db 1 TTTCCTAGAGAAATCCCATGATAGACTGGTGACAGACTTGACACTGCTCCACT 60
QY 1 TTTCCTAGAGAAATCCCATGATAGACTGGTGACAGACTTGACACTGCTCCACT 60
Db 1 TTTCCTAGAGAAATCCCATGATAGACTGGTGACAGACTTGACACTGCTCCACT 60
QY 61 CATGAACCTGGCTGATAGGCGATGAGAACTGATGATCTCTACTCTGAAATTAAT 120
Db 61 CATGAACCTGGCTGATAGGCGATGAGAACTGATGATCTCTACTCTGAAATTAAT 120
QY 61 CATGAACCTGGCTGATAGGCGATGAGAACTGATGATCTCTACTCTGAAATTAAT 120
Db 61 CATGAACCTGGCTGATAGGCGATGAGAACTGATGATCTCTACTCTGAAATTAAT 120
QY 121 CACCAACTGCGATTAAAGAGTTTTCAGGGTATAGACATGAGAAACCAACTGCC 180
Db 121 CACCAACTGCGATTAAAGAGTTTTCAGGGTATAGACATGAGAAACCAACTGCC 180
QY 121 CACCAACTGCGATTAAAGAGTTTTCAGGGTATAGACATGAGAAACCAACTGCC 180
Db 121 CACCAACTGCGATTAAAGAGTTTTCAGGGTATAGACATGAGAAACCAACTGCC 180
QY 181 CACGGGAGGCTGTGATTAATCTATTCATAAATCTTCTTAATTAAGAACATAGAG 240
Db 181 CACGGGAGGCTGTGATTAATCTATTCATAAATCTTCTTAATTAAGAACATAGAG 240
QY 181 CACGGGAGGCTGTGATTAATCTATTCATAAATCTTCTTAATTAAGAACATAGAG 240
Db 181 CACGGGAGGCTGTGATTAATCTATTCATAAATCTTCTTAATTAAGAACATAGAG 240
QY 241 CGCCAAAAAAGAGTGTGCGAGGAAAGATGAGAGTGAACAAAGTTCTTGACTACTG 300
Db 241 CGCCAAAAAAGAGTGTGCGAGGAAAGATGAGAGTGAACAAAGTTCTTGACTACTG 300
QY 241 CGCCAAAAAAGAGTGTGCGAGGAAAGATGAGAGTGAACAAAGTTCTTGACTACTG 300
Db 241 CGCCAAAAAAGAGTGTGCGAGGAAAGATGAGAGTGAACAAAGTTCTTGACTACTG 300
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Qy 301 CAAGTATTTCTTGCGTATAAACAACCCGAGTGACACCCGAAAGT 345
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Db 301 CAAATATTCTTGCGTATAAACAACCCGAGTGACACCCGAAAGT 345

RESULT 2
US-09-32

US-09-322-409-87/C
 ? Sequence 87, Application US/09322409
 ? Patent No. 6471957
 ? GENERAL INFORMATION:
 ? APPLICANT: Sim, Gek-kee
 ? APPLICANT: Yang, Shumin
 ? APPLICANT: Drelitz, Matthew J.
 ? APPLICANT: Wonderling, Ramani S.
 ? TITLE OF INVENTION: CANINE AND FELINE IMMUNOREGULATORY PROTEINS, NUCLEIC
 ? TITLE OF INVENTION: ACID MOLECULES, AND USES THEREOF
 ? FILE REFERENCE: 1M-2-C1
 ? CURRENT APPLICATION NUMBER: US/09/322,409
 ? CURRENT FILING DATE: 1999-05-28
 ? EARLIER APPLICATION NUMBER: 60/087,306
 ? EARLIER FILING DATE: 1998-05-29
 ? NUMBER OF SEQ ID NOS: 154
 ? SOFTWARE: PatentIn Ver. 2.0
 ? SEQ ID NO 87
 ? LENGTH: 345
 ? TYPE: DNA
 ? ORGANISM: Canis familiaris
 US-09-322-409-87

Query Match	100.0%;	Score 345;	DB 4;	Length 345;
Best Local Similarity	100.0%;	Pred. No. 8.4e-101;		
Matches 345;	Conservative 0;	Mismatches 0;	Indels 0;	Gaps 0;

Qy	TTTGCTGTAGAAAAATCCCATGAAATAGACTGGTGGCAGAGACCTTGACACTGCTCCACT	60
Db	345 TTTGCTGTAGAAAAATCCCATGAAATAGACTGGTGGCAGAGACCTTGACACTGCTCCACT	268
Qy	61 CATCGAACTTGGCTGATAGCGCATGGGAACCTGATGATTTCTACTCTCGAAAAATAAAAAT	120
Db	285 CATGAACTTGGCTGATAGCGCATGGGAACCTGATGATTTCTACTCTCGAAAAATAAAAAT	226
Qy	121 CACCAACTGTGCATTAAGAAGTTTTCAGGGTATAGACACATTGAGAACCAAACTGCC	180
Db	225 CACCAACTGTGCATTAAGAAGTTTTCAGGGTATAGACACATTGAGAACCAAACTGCC	166
Qy	181 CACGGGGAAGCTGTGCATTAACATTTCCAAAACTGTCTTTATATAAAGAACATAGAG	240
Db	165 CACGGGGAAGCTGTGCATTAACATTTCCAAAACTGTCTTTATATAAAGAACATAGAG	106
Qy	241 CGCCAAAAAAGAGTGTGCAGGAGAAAGATGAGAGTGCACAAAGTCTCTAGACTACTCG	300
Db	105 CGCCAAAAAAGAGTGTGCAGGAGAAAGATGAGAGTGCACAAAGTCTCTAGACTACTCG	46
Qy	301 CAAGTATTTCTGTGTATTAACAACCGAGTGGACACCGGAAAGT	345
Db	45 CAAGTATTTCTGTGTATTAACAACCGAGTGGACACCGGAAAGT 1	

RESULT 3

US-09-451-527-85
Sequence 85, Application US/09451527
Patent No. 6482403
GENERAL INFORMATION:
APPLICANT: Sim, Gek-Kee
APPLICANT: Yang, Shunlin
APPLICANT: Dreitz, Matthew J.
APPLICANT: Wonderling, Ramani S.
TITLE OF INVENTION: CANINE AND FELINE IMMUNOREGULATORY PROTEINS, NUCLEIC
ACID MOLECULES, AND USES THEREOF
FILE REFERENCE: IM-2-C2
CURRENT APPLICATION NUMBER: US/09/451,527
CURRENT FILING DATE: 1999-12-01

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1 EARLIER APPLICATION NUMBER: 09/322,409
2 EARLIER FILING DATE: 1999-05-28
3 EARLIER APPLICATION NUMBER: 60/087,366
4 EARLIER FILING DATE: 1998-05-29
5 NUMBER OF SEQ ID NOS: 174
6 SOFTWARE: PatentIn Ver. 2.0
7 SEQ ID NO 85
8 LENGTH: 345

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; LENGTH: 345
; TYPE: DNA
; ORGANISM: Canis familiaris
; FEATURE:
; NAME/KEY: CDS
; LOCATION: (1)..(345)
;
US-09-451-527-85

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Query Match	100.0%;	Score 345;	DB 4;	Length 345;
Post-Translational	100.0%;	Score 345;	DB 4;	Length 345;

Matches 345; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

2Y 1 TTGGCTGTAGAAATCCCATGATAGACTGTTGGCAGAGACCTTGACACTGCTCTCCACT 60

Db 1 TTTGCTGTAGAAAATCCCATGATAGACTGGTGGCAGAGACCCTTGACACTGCTCTCCACT 60

61 CATCGACTGCGTGTAGCGCATGGGAACCTGATGATTCCTACTCCGTGAATAAAT 120

DB 61 CATCGACTTGGCTGATAGCGGATGGGACCTGATGATCCCTACTCCCGAATAAATAAT 120

121 CACCAACIGICAI AAGGAG I I I I CAGGIAAGACACAI I GAAGAACCAACIGC 180

[illegible]

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301 CAGCTATTTCCTGCTAATATAACCACTGCACTCCGACCAAGT 345

RESULT 4
US-09-451-527-87/c

sequence 8/, Application US/0945152/
Patent No. 6482403

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; GENERAL INFORMATION:
;
; APPLICANT: Sim, Gek-Kee

```

APPLICANT: Dreitz, Matthew J.

1. TITLE OF INVENTION: CANINE AND FELINE IMMUNOREGULATORY PROTEINS, NUCLEIC

FILE REFERENCE: IM-2-C2

; CURRENT FILING DATE: 1999-12-01

EARLIER FILING DATE: 1999-05-28

EARLIER FILING DATE: 1998-05-29

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; SOFTWARE: PatentIn Ver. 2.0
; SEQ ID NO 87

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; LENGTH: 345
; TYPE: DNA

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US-09-451-527-87

Query Match 100.0%: Score 345: DB 4: Length 345:

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Best Local Similarity 100.0%; P-Red. NO: 8.4e-101;
Matches 345; Conservative 0; Mismatches 0; Indels 0; Gaps 0

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Qy 1 TTGCTGTAGAAAATCCCATGATAGACTGTGCGAGAGACCTTGACACTGCTCCACT 60
Db 345 TTGCTGTAGAAAATCCCATGATAGACTGTGCGAGAGACCTTGACACTGCTCCACT 286
Qy 61 CATGGAACCTGGCTGATAGGCGATGGGAACCTGATGATTCCTACTCCTGAAAATATAAT 120
Db 285 CATGGAACCTGGCTGATAGGCGATGGGAACCTGATGATTCCTACTCCTGAAAATATAAT 226
Qy 121 CACCAACTGTGCTGATTAAGAAGTTTTCAGGGTATACACATGGAAGAACCAACGCC 180
Db 225 CACCAACTGTGCTGATTAAGAAGTTTTCAGGGTATACACATGGAAGAACCAACGCC 166
Qy 181 CACGGGAGGCTGTGATTAACCTATTCCTGTTTAAATATAAAGAACACATAGAG 240
Db 165 CACGGGAGGCTGTGATTAACCTATTCCTGTTTAAATATAAAGAACACATAGAG 106
Qy 241 CGCCAAAAAAGAGTGTGACGAGAAAGATGAGAGTGAACAAAGTTCTAGACTCTG 300
Db 105 CGCCAAAAAAGAGTGTGACGAGAAAGATGAGAGTGAACAAAGTTCTAGACTCTG 46
Qy 301 CAAGTATTTCTGTGTATTAACACGAGTGAACACCGGAAAGT 345
Db 45 CAAGTATTTCTGTGTATTAACACGAGTGAACACCGGAAAGT 1

RESULT 5
US-09-322-409-83
; Sequence 83, Application US/09322409
; Patent No. 6471957
; GENERAL INFORMATION:
; APPLICANT: Sim, Gek-Kee
; APPLICANT: Yang, Shumin
; APPLICANT: Dreitz, Matthew J.
; APPLICANT: Wonderling, Ramani S.
; TITLE OF INVENTION: CANINE AND FELINE IMMUNOREGULATORY PROTEINS, NUCLEIC
; FILE REFERENCE: IM-2-C1
; CURRENT APPLICATION NUMBER: US/09/322,409
; CURRENT FILING DATE: 1999-05-28
; EARLIER APPLICATION NUMBER: 60/087,306
; EARLIER FILING DATE: 1998-05-29
; NUMBER OF SEQ ID NOS: 154
; SOFTWARE: PatentIn Ver. 2.0
; SEQ ID NO 83
; LENGTH: 402
; TYPE: DNA
; ORGANISM: Canis familiaris
US-09-322-409-83

Query Match 100.0%; Score 345; DB 4; Length 402;
Best Local Similarity 100.0%; Pred. No. 9e-101;
Matches 345; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 TTGCTGTAGAAAATCCCATGATAGACTGTGCGAGAGACCTTGACACTGCTCCACT 60
Db 58 TTGCTGTAGAAAATCCCATGATAGACTGTGCGAGAGACCTTGACACTGCTCCACT 117
Qy 61 CATGGAACCTGGCTGATAGGCGATGGGAACCTGATGATTCCTACTCCTGAAAATATAAT 120
Db 118 CATGGAACCTGGCTGATAGGCGATGGGAACCTGATGATTCCTACTCCTGAAAATATAAT 177
Qy 121 CACCAACTGTGCTGATTAAGAAGTTTTCAGGGTATACACATGGAAGAACCAACGCC 180
Db 178 CACCAACTGTGCTGATTAAGAAGTTTTCAGGGTATACACATGGAAGAACCAACGCC 237
Qy 181 CACGGGAGGCTGTGATTAACCTATTCCTGTTTAAATATAAAGAACACATAGAG 240
Db 238 CACGGGAGGCTGTGATTAACCTATTCCTGTTTAAATATAAAGAACACATAGAG 297
Qy 241 CGCCAAAAAAGAGTGTGACGAGAAAGATGAGAGTGAACAAAGTTCTAGACTCTG 300
Db 298 CGCCAAAAAAGAGTGTGACGAGAAAGATGAGAGTGAACAAAGTTCTAGACTCTG 357
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Qy 301 CAAGTATTTCTGTGTATTAACACGAGTGAACACCGGAAAGT 345
Db 358 CAAGTATTTCTGTGTATTAACACGAGTGAACACCGGAAAGT 402

RESULT 6
US-09-322-409-84/c
; Sequence 84, Application US/09322409
; Patent No. 6471957
; GENERAL INFORMATION:
; APPLICANT: Sim, Gek-Kee
; APPLICANT: Yang, Shumin
; APPLICANT: Dreitz, Matthew J.
; APPLICANT: Wonderling, Ramani S.
; TITLE OF INVENTION: CANINE AND FELINE IMMUNOREGULATORY PROTEINS, NUCLEIC
; FILE REFERENCE: IM-2-C1
; CURRENT APPLICATION NUMBER: US/09/322,409
; CURRENT FILING DATE: 1999-05-28
; EARLIER APPLICATION NUMBER: 60/087,306
; EARLIER FILING DATE: 1998-05-29
; NUMBER OF SEQ ID NOS: 154
; SOFTWARE: PatentIn Ver. 2.0
; SEQ ID NO 84
; LENGTH: 402
; TYPE: DNA
; ORGANISM: Canis familiaris
US-09-322-409-84

Query Match 100.0%; Score 345; DB 4; Length 402;
Best Local Similarity 100.0%; Pred. No. 9e-101;
Matches 345; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 TTGCTGTAGAAAATCCCATGATAGACTGTGCGAGAGACCTTGACACTGCTCCACT 60
Db 345 TTGCTGTAGAAAATCCCATGATAGACTGTGCGAGAGACCTTGACACTGCTCCACT 286
Qy 61 CATGGAACCTGGCTGATAGGCGATGGGAACCTGATGATTCCTACTCCTGAAAATATAAT 120
Db 285 CATGGAACCTGGCTGATAGGCGATGGGAACCTGATGATTCCTACTCCTGAAAATATAAT 226
Qy 121 CACCAACTGTGCTGATTAAGAAGTTTTCAGGGTATACACATGGAAGAACCAACGCC 180
Db 225 CACCAACTGTGCTGATTAAGAAGTTTTCAGGGTATACACATGGAAGAACCAACGCC 166
Qy 181 CACGGGAGGCTGTGATTAACCTATTCCTGTTTAAATATAAAGAACACATAGAG 240
Db 165 CACGGGAGGCTGTGATTAACCTATTCCTGTTTAAATATAAAGAACACATAGAG 106
Qy 241 CGCCAAAAAAGAGTGTGACGAGAAAGATGAGAGTGAACAAAGTTCTAGACTCTG 300
Db 105 CGCCAAAAAAGAGTGTGACGAGAAAGATGAGAGTGAACAAAGTTCTAGACTCTG 46
Qy 301 CAAGTATTTCTGTGTATTAACACGAGTGAACACCGGAAAGT 345
Db 45 CAAGTATTTCTGTGTATTAACACGAGTGAACACCGGAAAGT 1

RESULT 7
US-09-451-527-83
; Sequence 83, Application US/09451527
; Patent No. 6482403
; GENERAL INFORMATION:
; APPLICANT: Sim, Gek-Kee
; APPLICANT: Yang, Shumin
; APPLICANT: Dreitz, Matthew J.
; APPLICANT: Wonderling, Ramani S.
; TITLE OF INVENTION: CANINE AND FELINE IMMUNOREGULATORY PROTEINS, NUCLEIC
; FILE REFERENCE: IM-2-C2
; CURRENT APPLICATION NUMBER: US/09/451,527
; CURRENT FILING DATE: 1999-12-01
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EARLIER APPLICATION NUMBER: 09/322,409
EARLIER FILING DATE: 1999-05-28
EARLIER APPLICATION NUMBER: 60/087,306
EARLIER FILING DATE: 1998-05-29
NUMBER OF SEQ ID NOS: 174
SOFTWARE: PatentIn Ver. 2.0
SEQ ID NO 83
LENGTH: 402
TYPE: DNA
ORGANISM: Canis familiaris
US-09-451-527-83

Query Match 100.0%; Score 345; DB 4; Length 402;
Best Local Similarity 100.0%; Pred. No. 9e-101;
Matches 345; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 TTGCTGTAGAAAATCCCATGATAGACTGTGCGAGAGACTTGTGACACTGCTCTCCACT 60
DB 58 TTGCTGTAGAAAATCCCATGATAGACTGTGCGAGAGACTTGTGACACTGCTCTCCACT 117
QY 61 CATGAACTTGCTGTATAGGCGATGGAACTGTGATGATTCCTACTCCTGAAAATTAATAAT 120
DB 118 CATGAACTTGCTGTATAGGCGATGGAACTGTGATGATTCCTACTCCTGAAAATTAATAAT 177
QY 121 CACCAACTGTGCTATTAAGAAAGTTTTCAGGGTATAGACATTTGAAGAACCAACTGCC 180
DB 178 CACCAACTGTGCTATTAAGAAAGTTTTCAGGGTATAGACATTTGAAGAACCAACTGCC 237
QY 181 CACGGGAGGCTGTGATTAACCTATTCCTGATTAATAAGAACCATAGAG 240
DB 238 CACGGGAGGCTGTGATTAACCTATTCCTGATTAATAAGAACCATAGAG 297
QY 241 CGCCAAAAAAGAGTGTGCGAGAAAGATGAGAGTGAACAAAGTTCTAGACTACTG 300
DB 298 CGCCAAAAAAGAGTGTGCGAGAAAGATGAGAGTGAACAAAGTTCTAGACTACTG 357
QY 301 CAAGTATTTCTGTGTATTAACACCGAGTGAACCCGGAAGT 345
DB 358 CAAGTATTTCTGTGTATTAACACCGAGTGAACCCGGAAGT 402

RESULT 8
US-09-451-527-84/c
Sequence 84, Application US/09451527
Patent No. 6482403
GENERAL INFORMATION:
APPLICANT: Sim, Gek-Ke
APPLICANT: Yang, Shumin
APPLICANT: Dreitz, Matthew J.
APPLICANT: Wonderling, Ramani S.
TITLE OF INVENTION: CANINE AND FELINE IMMUNOREGULATORY PROTEINS, NUCLEIC
FILE REFERENCE: IM-2-C2
CURRENT APPLICATION NUMBER: US/09/451,527
CURRENT FILING DATE: 1999-12-01
EARLIER APPLICATION NUMBER: 09/322,409
EARLIER FILING DATE: 1999-05-28
EARLIER APPLICATION NUMBER: 60/087,306
EARLIER FILING DATE: 1998-05-29
NUMBER OF SEQ ID NOS: 174
SOFTWARE: PatentIn Ver. 2.0
SEQ ID NO 84
LENGTH: 402
TYPE: DNA
ORGANISM: Canis familiaris
US-09-451-527-84

Query Match 100.0%; Score 345; DB 4; Length 402;
Best Local Similarity 100.0%; Pred. No. 9e-101;
Matches 345; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
QY 1 TTGCTGTAGAAAATCCCATGATAGACTGTGCGAGAGACTTGTGACACTGCTCTCCACT 60

DB 345 TTGCTGTAGAAAATCCCATGATAGACTGTGCGAGAGACTTGTGACACTGCTCTCCACT 286
QY 61 CATGAACTTGCTGTATAGGCGATGGAACTGTGATGATTCCTACTCCTGAAAATTAATAAT 120
DB 285 CATGAACTTGCTGTATAGGCGATGGAACTGTGATGATTCCTACTCCTGAAAATTAATAAT 226
QY 121 CACCAACTGTGCTATTAAGAAAGTTTTCAGGGTATAGACATTTGAAGAACCAACTGCC 180
DB 225 CACCAACTGTGCTATTAAGAAAGTTTTCAGGGTATAGACATTTGAAGAACCAACTGCC 166
QY 181 CACGGGAGGCTGTGATTAACCTATTCCTGATTAATAAGAACCATAGAG 240
DB 165 CACGGGAGGCTGTGATTAACCTATTCCTGATTAATAAGAACCATAGAG 106
QY 241 CGCCAAAAAAGAGTGTGCGAGAAAGATGAGAGTGAACAAAGTTCTAGACTACTG 300
DB 105 CGCCAAAAAAGAGTGTGCGAGAAAGATGAGAGTGAACAAAGTTCTAGACTACTG 46
QY 301 CAAGTATTTCTGTGTATTAACACCGAGTGAACCCGGAAGT 345
DB 45 CAAGTATTTCTGTGTATTAACACCGAGTGAACCCGGAAGT 1

RESULT 9
US-09-322-409-80
Sequence 80, Application US/09322409
Patent No. 6471957
GENERAL INFORMATION:
APPLICANT: Sim, Gek-Ke
APPLICANT: Yang, Shumin
APPLICANT: Dreitz, Matthew J.
APPLICANT: Wonderling, Ramani S.
TITLE OF INVENTION: CANINE AND FELINE IMMUNOREGULATORY PROTEINS, NUCLEIC
FILE REFERENCE: IM-2-C1
CURRENT APPLICATION NUMBER: US/09/322,409
CURRENT FILING DATE: 1999-05-28
EARLIER APPLICATION NUMBER: 60/087,306
EARLIER FILING DATE: 1998-05-29
NUMBER OF SEQ ID NOS: 154
SOFTWARE: PatentIn Ver. 2.0
SEQ ID NO 80
LENGTH: 610
TYPE: DNA
ORGANISM: Canis familiaris
FEATURE:
NAME/KEY: CDS
LOCATION: (29)..(430)
US-09-322-409-80

Query Match 100.0%; Score 345; DB 4; Length 610;
Best Local Similarity 100.0%; Pred. No. 1.1e-100;
Matches 345; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
QY 1 TTGCTGTAGAAAATCCCATGATAGACTGTGCGAGAGACTTGTGACACTGCTCTCCACT 60
DB 86 TTGCTGTAGAAAATCCCATGATAGACTGTGCGAGAGACTTGTGACACTGCTCTCCACT 145
QY 61 CATGAACTTGCTGTATAGGCGATGGAACTGTGATGATTCCTACTCCTGAAAATTAATAAT 120
DB 146 CATGAACTTGCTGTATAGGCGATGGAACTGTGATGATTCCTACTCCTGAAAATTAATAAT 205
QY 121 CACCAACTGTGCTATTAAGAAAGTTTTCAGGGTATAGACATTTGAAGAACCAACTGCC 180
DB 206 CACCAACTGTGCTATTAAGAAAGTTTTCAGGGTATAGACATTTGAAGAACCAACTGCC 265
QY 181 CACGGGAGGCTGTGATTAACCTATTCCTGATTAATAAGAACCATAGAG 240
DB 266 CACGGGAGGCTGTGATTAACCTATTCCTGATTAATAAGAACCATAGAG 325
QY 241 CGCCAAAAAAGAGTGTGCGAGAAAGATGAGAGTGAACAAAGTTCTAGACTACTG 300
DB 326 CGCCAAAAAAGAGTGTGCGAGAAAGATGAGAGTGAACAAAGTTCTAGACTACTG 385

Qy 301 CAAGTATTTCTTGSTGTATTAACACCCGAGTGAACACCGGAAAGT 3453

Db 386 CAAGTATTTCTTGSTGTATTAACACCCGAGTGAACACCGGAAAGT 4300

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RESULT 10
US-09-322-409-82/c
; Sequence 82, Application US/09322409
; Patent No. 6471957
; GENERAL INFORMATION:
; APPLICANT: Sim, Gek-kee
; APPLICANT: Yang, Shumin
; APPLICANT: Drelitz, Matthew J.
; APPLICANT: Wonderling, Ramani S.
; TITLE OF INVENTION: CANINE AND FELINE IMMUNOREGULATORY PROTEINS, NUCLEIC
; FILE REFERENCE: IM-2-C1
; TITLE OF INVENTION: ACID MOLECULES, AND USES THEREOF
; CURRENT APPLICATION NUMBER: US/09/322,409
; CURRENT FILING DATE: 1999-05-28
; EARLIER APPLICATION NUMBER: 60/087,306
; EARLIER FILING DATE: 1998-05-29
; NUMBER OF SEQ ID NOS: 154
; SOFTWARE: Patentin Ver. 2.0
; SEQ ID NO 82
; LENGTH: 610
; TYPE: DNA
; ORGANISM: Canis familiaris
US-09-322-409-82

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RESULT 11
US-09-451-527-80
; Sequence 80, Application US/09451527
; Patent No. 6482403
; GENERAL INFORMATION:
; APPLICANT: Sim, Gek-Kee
; APPLICANT: Yang, Shumin
; APPLICANT: Dreitz, Matthew J.
; APPLICANT: Wonderling, Ramani S.
; TITLE OF INVENTION: CANINE AND FELINE IMMUNOREGULATORY PROTEINS, NUCLEIC
; TITLE OF INVENTION: ACID MOLECULES, AND USES THEREOF
; FILE REFERENCE: IM-2-C2
; CURRENT APPLICATION NUMBER: US/09/451,527
; CURRENT FILING DATE: 1999-12-01

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? EARLIER APPLICATION NUMBER: 09/322,409
? EARLIER FILING DATE: 1999-05-28
? EARLIER APPLICATION NUMBER: 60/087,306
? EARLIER FILING DATE: 1998-05-29
? NUMBER OF SEQ ID NOS: 174
? SOFTWARE: PatentIn Ver. 2.0
? SEQ ID NO 80
? LENGTH: 610
? TYPE: DNA
? ORGANISM: Canis familiaris
? FEATURE:
? NAME/KEY: CDS
? LOCATION: (29)..(430)
US-09-451-527-80

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RESULT 12
US-09-451-527-82/C
; Sequence 82, Application US/09451527
; Patent No. 6482403
; GENERAL INFORMATION:
; APPLICANT: Sim, Gek-Kea
; APPLICANT: Yang, Shumin
; APPLICANT: Drelitz, Matthew J.
; APPLICANT: Wonderling, Ramani S.
; TITLE OF INVENTION: CANINE AND FELINE IMMUNOREGULATORY PROTEINS, NUCLEIC
; FILE REFERENCE: IM-2-C2
; CURRENT APPLICATION NUMBER: US/09/451,527
; EARLIER APPLICATION NUMBER: 09/322,409
; EARLIER FILING DATE: 1999-05-28
; EARLIER APPLICATION NUMBER: 60/087,306
; EARLIER FILING DATE: 1998-05-29
; NUMBER OF SEQ ID NOS: 174.
; SOFTWARE: PatentIn Ver. 2.0
; SEQ ID NO 82
; LENGTH: 610
; TYPE: DNA
; ORGANISM: Canis familiaris
US-09-451-527-82

Query Match          100.0%; Score 345; DB 4; Length 610;
Best Local Similarity 100.0%; Pred. No. 1,1e-100;
Matches 345; Conservative 0; Mismatches 0; Indels 0; Gaps 0

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Qy	1	TTTGCTGTAAGAAATCCCATGATAGACGTGGCAGAGACCTTGACACGTCTCCACT	60
Db	525	TTTGCTGTAGAAATCCCATGATAGACGTGGCAGAGACCTTGACACGTCTCCACT	466
Qy	61	CATCGAACTTGGCTGATAGCGCATGGGAACCTGATGATCTCTACTCTGAAAAAT	120
Db	465	CATCGAACTTGGCTGATAGCGCATGGGAACCTGATGATCTCTACTCTGAAAAAT	406
Qy	121	CACCAACTGTGCATTTAAGAGTTTTTCAGGATATAGACATTGAAGAACCAACTGCC	180
Db	405	CACCAACTGTGCATTTAAGAGTTTTTCAGGATATAGACATTGAAGAACCAACTGCC	346
Qy	181	CACGGGAGAGCTGTGATATAACTATTCGAAACTTGCTTTAATTAAGAACCATATGAG	240
Db	345	CACGGGAGAGCTGTGATATAACTATTCGAAACTTGCTTTAATTAAGAACCATATGAG	286
Qy	241	CGCCAAAAAAAAGGTGTGCAGAGAGAAAGATGAGAGTGAACAAAGTTCATGACTG	300
Db	285	CGCCAAAAAAAAGGTGTGCAGAGAGAAAGATGAGAGTGAACAAAGTTCATGACTG	226
Qy	301	CAAGTATTTCTGTGTTAATTAACCCGAGTGGACACCGGAAAAGT	345
Db	225	CAAGTATTTCTGTGTTAATTAACCCGAGTGGACACCGGAAAAGT	181

```

RESULT 13
US-09-371-615A-1
: Sequence 1, Application US/09371615A
: Patent No. 6537781
: GENERAL INFORMATION:
: APPLICANT: IDEXX LABORATORIES
: TITLE OF INVENTION: METHODS AND COMPOSITIONS CONCERNING
: TITLE OF INVENTION: CANINE INTERLEUKIN 5
: FILE REFERENCE: 03604001700US00
: CURRENT APPLICATION NUMBER: US/09/371,615A
: CURRENT FILING DATE: 1999-08-10
: NUMBER OF SEQ ID NOS: 8
: SOFTWARE: FASTSQ for Windows Version 3.0
: SEQ ID NO 1
: LENGTH: 405
: TYPE: DNA
: ORGANISM: Canis familiaris
US-09-371-615A-1

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Query Match	99.1%	Score 341.8;	DB 4;	Length 405;
Best Local Similarity	99.4%	Pred. No. 9.7e-100;		
Matches 343; Conservative	0;	Mismatches 2;	Indels 0;	Gaps 0;

OY	TTGGCTGTAAATAATCCCATGAAATACATCGTGGCAGAGACCTTGACACTGCTCCACT	60
Db	TTTGGCTGTAAATAATCCCATGAAATACATCGTGGCAGAGACCTTGACACTGCTCCACT	117
OY	CATCGAACCTTGGCTGATAGCGCATGGGAACCTGATGATCTCTCGAAAAATAAAAAT	120
Db	CATCGAACCTTGGCTGATAGCGCATGGGAACCTGATGATCTCTCGAAAAATAAAAAT	177
OY	CACCAACTGTGCATTTAAAGAAGTTTTCAGGGTATAGACACATTGAAGAACCAAACTGCC	180
Db	CACCAACTGTGCATTTAAAGAAGTTTTCAGGGTATAGACACATTGAAGAACCAAACTGCC	237
OY	CACGGGAGGCTGTGATTAACCTATTCCAAACTTGCTCTTTATATAAAGAACACATAGAG	240
Db	CACGGGAGGCTGTGATTAACCTATTCCAAACTTGCTCTTTATATAAAGAACACATAGAG	297
OY	CGCCAAAAAAAAGTGTGCAGAGAGAAAATGAGAGTGACAAAGTTCTCTAGACTACCTG	300
Db	CGCCAAAAAAAAGTGTGCAGAGAGAAAATGAGAGTGACAAAGTTCTCTAGACTACCTG	357
OY	CAAGTATTTCTTGCTGTAAATAAACACCGAGTGGACACCGGAAAGT	345
Db	CAAGTATTTCTTGCTGTAAATAAACACCGAGTGGACAAATGGAAAGT	402

```

RESULT 14
US-09-079-839-2
; Sequence 2, Application US/09079839
; Patent No. 6048726
; GENERAL INFORMATION:
; APPLICANT: Weisman, Joel K.
; TITLE OF INVENTION: INHIBITION OF EOSINOPHILIC INFLAMMATION
; FILE REFERENCE: 09998/002001
; CURRENT APPLICATION NUMBER: US/09/079,839
; CURRENT FILING DATE: 1998-05-15
; NUMBER OF SEQ ID NOS: 2
; SOFTWARE: FASTSEQ for Windows Version 3.0
; SEQ ID NO 2
; LENGTH: 816
; TYPE: DNA
; ORGANISM: Homo sapiens
US-09-079-839-2

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Query Match	67.1%;	Score 231.4;	DB 3;	Length 816;
Best Local Similarity	-80.4%;	Pred. No. 3.7e-64;		
Matches 271;	Conservative 0;	Mismatches 66;	Indels 0;	Gaps 0;

QY	9	AGAAATATCCCATGAAATAGACTGAGTGGGAGAGACCTTGAACCTGTCTTCACATCTCAAC	68
Db	110	AGAAATTCGCCAAGTGCATTGTGTGAAGAAGACCTTGGCACTGGCTTTCTACTCATCGAAC	169
QY	69	TTGGCTGATAGGCGATGGGAACCTGATGATTTCTTACTCTCTGAATAATCAACCAACT	128
Db	170	TCTCTATATACCCATATAGACTCTGAGAGATTCCTGTTCTGTATATATAAAATCACCAACT	229
QY	129	GTGCATTAAAGAGTTTTCAGGGTATAGACACATTGAGAACCAACCTGCCACGGGGA	188
Db	230	GTGACACTGAAGAAATCTTCAGGAATAGGCACACTGGAGAGTCAAACTGTGCAAGGGGG	289
QY	189	GGCTGTGGATTAACATATTCCAAACCTGTTTAAATAAAGAACACATAGAGCGCCAAA	248
Db	290	TACTGTGAAGACTATTCATAAAACCTGTCTTATATAAAGAAATACATGACGGCCAAA	349
QY	249	AAAAAGTGTGCAGAGAGAAAGATGAGAGAGTACAAAGTTCCTAGACTCACTGCAAGTATT	308
Db	350	AAAAAGTGTGAGAGAGAAAGACGGAGAGTAAACCAATTCTTAGACTACCTGCAAGAGTT	409
QY	309	TCTTGCTGTATTAACACCGAGTGGACACCGGAAGT	345
Db	410	TCTTGCTGTATTAAGACACCGAGTGGATATTAAGAAAGT	446

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; CLASSIFICATION:
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; APPLICATION NUMBER:
; FILING DATE:
; CLASSIFICATION:
; ATTORNEY/AGENT INFORMATION:
; NAME: Zeller, Karen J.
; REGISTRATION NUMBER: 37,071
; REFERENCE/DOCKET NUMBER: PA-0001 US
; TELECOMMUNICATION INFORMATION:
; TELEPHONE: (650) 855-0555
; TELEFAX: (650) 845-4166
; INFORMATION FOR SEQ ID NO: 1236:
; SEQUENCE CHARACTERISTICS:
; LENGTH: 816 base pairs
; TYPE: nucleic acid
; STRANDEDNESS: single
; TOPOLOGY: linear
; IMMEDIATE SOURCE:
; LIBRARY: GENBANK
; CLONE: g288309
; US-09-023-655-1236

Query Match      66.6%; Score 229.8; DB 4; Length 816;
Best Local Similarity 80.1%; Pred. No. 1.2e-63;
Matches 270; Conservative 0; Mismatches 67; Indels 0; Gaps 0;

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QY      129 GTGCAATTAAGAGATTTTTCAGGGTATAGACATGTAAGAACCAACTGCCGCGGGA 188
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QY      309 TCTTGTGTATAATAACCGAGTGGACACCGGAAAGT 345
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GenCore version 5.1.6
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OM nucleic - nucleic search, using sw model

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Perfect score: 345
Sequence: 1 ttgcgtcgtagaatacccat.....ccgagtcgacacccgaaagt 345

Scoring table: IDENTITY NUC
Gapop 10.0, Gapext 1.0

Searched: 4708233-segs, 24227607955 residues

Total number of hits satisfying chosen parameters: 9416466

Minimum DB seg length: 0
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Post-processing: Minimum Match 0%
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Listing first 45 summaries

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Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

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2	345	100.0	345	6	BD211563 Canine an
3	345	100.0	345	6	AR241540 Sequence
4	345	100.0	345	6	AR241541 Sequence
5	345	100.0	345	6	AR254496 Sequence
6	345	100.0	345	6	AR254497 Sequence
7	345	100.0	402	6	BD211560 Canine an
8	345	100.0	402	6	BD211561 Canine an
9	345	100.0	402	6	AR241538 Sequence
10	345	100.0	402	6	AR241539 Sequence
11	345	100.0	402	6	AR254494 Sequence
12	345	100.0	402	6	AR254495 Sequence
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18	345	100.0	610	6	AR254492 Sequence
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25	285.4	82.7	405	4	AF068770 Felis cat
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27	280	81.2	529	4	SSC133452 Sus scrofa
28	278.4	80.7	405	4	SSC10088 Sus scrofa
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ALIGNMENTS

RESULT 1
LOCUS BD211562
DEFINITION Canine and feline immunoregulatory proteins, nucleic acid molecules
ACCESSION BD211562
VERSION BD211562.1 GI:33021332
KEYWORDS JP 2002516104-A/68
SOURCE Canis familiaris (dog)
ORGANISM Canis familiaris
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Carnivora; Fissipedia; Canidae; Canis.

REFERENCE
AUTHORS Sim, G., Yang, S., Dreitz, M.J. and Wonderling, R.S.
TITLE Canine and feline immunoregulatory proteins, nucleic acid molecules
JOURNAL Patent: JP 2002516104-A 68 04-JUN-2002;

COMMENT
OS Canis familiaris (dog)
PN JP 2002516104-A/68
PD 04-JUN-2002
PR 28-MAY-1999 JP 2000551002
PI 29-MAY-1998 US 60/087306

PC C12N15/09, A61K31/7088, A61K38/00, A61K39/00, A61K39/395,
PC A61K39/395,
PC A61K45/00, A61K48/00, A61P37/02, A61P37/04, C07K14/475, C07K14/535,
PC C07K14/54,
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PC G01N33/50, C12N15/00, A61K37/02, A61K37/66, C12N5/00 CC Canine
and feline immunoregulatory proteins, nucleic acid CC
molecules and
PC method of using the same
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Best Local Similarity 100.0%; Pred. No. 4, 8e-83;
Matches 345; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

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QY 61 CATGAACCTTGCTGATAGGCGATGGGAACTGATGATTCCTACTCTGAAAAATAAAAAT 120
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QY 181 CACGGGAGGCTGTGATTAACCTATTCGAAACCTGCTTTATATTAAGAACACATAGAG 240
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BD211563/c 345 bp DNA linear PAT 17-JUN-2003
LOCUS Canine and feline immunoregulatory proteins, nucleic acid molecules
DEFINITION and method of using the same.
ACCESSION BD211563
VERSION BD211563.1 GI:33021333
KEYWORDS JP 2002516104-A/69
SOURCE Canis familiaris (dog)
ORGANISM Canis familiaris
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Carnivora; Fissipedia; Canidae; Canis.
REFERENCE 1 (bases 1 to 345)
AUTHORS Sim,G., Yang,S., Dreitz,M.J. and Wonderling,R.S.
TITLE Canine and feline immunoregulatory proteins, nucleic acid molecules
and method of using the same
JOURNAL Patent: JP 2002516104-A 69 04-JUN-2002;
HESKA CORP
COMMENT OS Canis familiaris (dog)
PN JP 2002516104-A/69
PD 04-JUN-2002
PR 28-MAY-1999 JP 2000551002
PI 29-MAY-1998 US 60/087306
PI GEKKEE SIM,SHIMIN YANG,MATTHEW J DREITZ,RAMANI S WONDERLING PC
C12N15/09,A61K31/7088,A61K38/00,A61K38/21,A61K39/00,A61K39/35,
PC A61K39/35,
PC A61K45/00,A61K48/00,A61P37/02,A61P37/04,C07K14/475,C07K14/535,
PC C07K14/54,
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and feline immunoregulatory proteins, nucleic acid CC
molecules and
CC method of using the same
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Best Local Similarity 100.0%; Pred. No. 4, 8e-83;
Matches 345; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

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QY 181 CACGGGAGGCTGTGATTAACCTATTCGAAACCTGCTTTATATTAAGAACACATAGAG 240
DB 165 CACGGGAGGCTGTGATTAACCTATTCGAAACCTGCTTTATATTAAGAACACATAGAG 106

QY 241 CGCCAAAAAAGGTGTGCGAGAGAAAGATGAGAGTGAACAAAGTTCTAGACTACCTG 300
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QY 301 CAAGTATTTCTTGTGTATTAACACCGAGTGAACCGGAAAGT 345
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RESULT 3
AR241540 345 bp DNA linear PAT 20-DEC-2002
LOCUS Sequence 85 from patent US 6471957.
DEFINITION AR241540
ACCESSION AR241540.1 GI:27287249
VERSION AR241540.1
KEYWORDS
SOURCE Unknown.
ORGANISM Unknown.
REFERENCE 1 (bases 1 to 345)
AUTHORS Sim,G.-K., Yang,S., Dreitz,M.J. and Wonderling,R.S.
TITLE Canine IL-4 immunoregulatory proteins and uses thereof
JOURNAL Patent: US 6471957-A 85 29-OCT-2002;
FEATURES location/Qualifiers
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Best Local Similarity 100.0%; Pred. No. 4, 8e-83;
Matches 345; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 TTGCTGTAGAAAATCCCATGATAGACTGTGCGAGAGACCTTGACACTGCTCTCCACT 60
DB 1 TTGCTGTAGAAAATCCCATGATAGACTGTGCGAGAGACCTTGACACTGCTCTCCACT 60

QY 61 CATGAACCTTGCTGATAGGCGATGGGAACTGATGATTCCTACTCTGAAAAATAAAAAT 120
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QY 181 CACGGGAGGCTGTGATTAACCTATTCGAAACCTGCTTTATATTAAGAACACATAGAG 240
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QY 241 CGCCAAAAAAGGTGTGCGAGAGAAAGATGAGAGTGAACAAAGTTCTAGACTACCTG 300
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Oy		301	CAGATATTCTTGGTGTAATAAACAACCGAGTCGACACCGGAAAGT	345	
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DEFINITION	Sequence 87 from patent US 6471957.				
ACCESSION	AR241541				
VERSION	AR241541.1				
KEYWORDS	GI:27287250				
SOURCE	.				
ORGANISM	Unknown.				
REFERENCE	Unclassified.				
AUTHORS	1. (bases 1 to 345)				
TITLE	Sim,G.-K., Yang,S., Drelitz,M.J. and Wonderling,R.S.				
JOURNAL	Canine IL-4 immunoregulatory proteins and uses thereof				
FEATURES	Patent: US 6471957-A 87 29-OCT-2002;				
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Oy	61	CATGGAATCTGGCTGATGAGCGGATGGGAACTGATGATTTCTTACTCTCTGAAAATATAAAT	120		
Db	285	CATGGAATCTGGCTGATGAGCGGATGGGAACTGATGATTTCTTACTCTCTGAAAATATAAAT	226		
Oy	121	CACCAACTGTGCATTAAGAAAGTTTTTCAGGGTATAGACACTTGAAGAACCAAACTGCC	180		
Db	225	CACCAACTGTGCATTAAGAAAGTTTTTCAGGGTATAGACACTTGAAGAACCAAACTGCC	166		
Oy	181	CACGGGAGGCTGTGATTAACCTATTCCAAAACTTGCTTTAATATAAAGAACACATAGAG	240		
Db	165	CACGGGAGGCTGTGATTAACCTATTCCAAAACTTGCTTTAATATAAAGAACACATAGAG	106		
Oy	241	GCCCCAAAAAAAAAGGTGTGTCAGAGAGAAAGATGAGAGATGACAAAGTTCTTAGACTACTGCT	300		
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Oy	301	CAAGTATTCTTGGTGTAATAAACAACCGAGTCGACACCGGAAAGT	345		
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LOCUS	AR254496				
DEFINITION	Sequence 85 from patent US 6482403.				
ACCESSION	AR254496				
VERSION	AR254496.1				
KEYWORDS	GI:27303384				
SOURCE	.				
ORGANISM	Unknown.				
REFERENCE	Unclassified.				
AUTHORS	1. (bases 1 to 345)				
TITLE	Sim,G.-K., Yang,S., Drelitz,M.J. and Wonderling,R.S.				
JOURNAL	Canine IL-13 immunoregulatory proteins and uses thereof				
FEATURES	Patent: US 6482403-A 85 19-NOV-2002;				
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Qy	61	CATGAACTTGCGTGTATAGGCGATGGGAACCTGTGATTCCTACTCTGAAAATATAAT	120	
Db	61	CATGAACTTGCGTGTATAGGCGATGGGAACCTGTGATTCCTACTCTGAAAATATAAT	120	
Qy	121	CACCAACTGTGCATTAAGAAGTTTTCAGGGTATAGACATTTGAAGAACCAACTGCC	180	
Db	121	CACCAACTGTGCATTAAGAAGTTTTCAGGGTATAGACATTTGAAGAACCAACTGCC	180	
Qy	181	CACGGGGAGGCTGTGATTAACCTATTCCAAACTGTCTTTAATATAAGAACATAGAG	240	
Db	181	CACGGGGAGGCTGTGATTAACCTATTCCAAACTGTCTTTAATATAAGAACATAGAG	240	
Qy	241	CGCCAAAAAAAAGGTGTGACAGAAAGATGAGATGACAAAGTTCCTAGACTAG	300	
Db	241	CGCCAAAAAAAAGGTGTGACAGAAAGATGAGATGACAAAGTTCCTAGACTAG	300	
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DEFINITION	Sequence 87 from patent US 6482403.			
ACCESSION	AR254497			
VERSION	AR254497.1	GI:27303385		
KEYWORDS				
SOURCE	Unknown.			
ORGANISM	Unknown.			
REFERENCE	1. (bases 1 to 345)			
AUTHORS	Sim,G.-K., Yang,S., Dreitz,M.J. and Wonderling,R.S.			
TITLE	Cadherin II-13 Immunoregulatory proteins and uses thereof			
JOURNAL	Patent: US 6482403-A 87 15-NOV-2002;			
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Db	345	TTTGCTGTAGAAAATCCCATGATATAGACTGTGGCAGAGACCTTGACACTGCTCTCCACT	286	
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Db	285	CATGAACTTGCGTGTATAGGCGATGGGAACCTGTGATTCCTACTCTGAAAATATAAT	226	
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Db	225	CACCAACTGTGCATTAAGAAGTTTTCAGGGTATAGACATTTGAAGAACCAACTGCC	166	
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QY 301 CAAATATTTCTTGTTGTAATATAACACCGAGTGAACACCGGAAAGT 345

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LOCUS Canine and feline immunoregulatory proteins, nucleic acid molecules
DEFINITION and method of using the same.
ACCESSION BD211560
VERSION BD211560.1 GI:33021330
KEYWORDS JP 2002516104-A/66.
SOURCE Canis familiaris (dog)
ORGANISM Canis familiaris
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Carnivora; Plissipedia; Canidae; Canis.
REFERENCE 1 (bases 1 to 402)
AUTHORS Sim,G., Yang,S., Dretz,M.J. and Wonderling,R.S.
TITLE Canine and feline immunoregulatory proteins, nucleic acid molecules and method of using the same
JOURNAL Patent: JP 2002516104-A 66 04-JUN-2002;
HESKA CORP
COMMENT OS Canis familiaris (dog)
PN JP 2002516104-A/66
PD 04-JUN-2002
PF 28-MAY-1999 JP 2000551002
PR 29-MAY-1998 US 60/087306
PI GEKKEB SIM,SHUMIN YANG,MATTHEW J DREITZ,RAMANI S WONDERLING PC
C12N15/09,A61K31/7088,A61K38/00,A61K38/21,A61K39/00,A61K39/395,
PC A61K39/395,
PC A61K45/00,A61K48/00,A61P37/02,A61P37/04,C07K14/475,C07K14/535,
PC C07K14/54,
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and feline immunoregulatory proteins, nucleic acid CC
molecules and
CC method of using the same
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ORIGIN

Query Match 100.0%; Score 345; DB 6; Length 402;
Best Local Similarity 100.0%; Pred. No. 4,7e-83;
Matches 345; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 TTTGCTGTAGAAAATCCCATGATAGACTGTGCGAGAGACTTGTGACACTGCTCTCCACT 60

Db 58 TTTGCTGTAGAAAATCCCATGATAGACTGTGCGAGAGACTTGTGACACTGCTCTCCACT 117

QY 61 CATGAACCTGGCTGATAGAGCGATGGGAACCTGATGATTTCTACTCTCTGAAAATATAAAT 120

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QY 181 CACGGGAGGCTGTGATATAATTCCTGATGATTTCTTTAATATAAAGAACATAGAG 240

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QY 241 CGCCAAAAAAGGTGTGACGAGGAAAGATGAGAGTGCACAAAGTTCTAGACTACTG 300

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QY 301 CAAATATTTCTTGTTGTAATATAACACCGAGTGAACACCGGAAAGT 345

Db 358 CAAATATTTCTTGTTGTAATATAACACCGAGTGAACACCGGAAAGT 402

RESULT 8
BD211561/c 402 bp DNA linear PAT 17-JUN-2003
LOCUS Canine and feline immunoregulatory proteins, nucleic acid molecules
DEFINITION and method of using the same.
ACCESSION BD211561
VERSION BD211561.1 GI:33021331
KEYWORDS JP 2002516104-A/67.
SOURCE Canis familiaris (dog)
ORGANISM Canis familiaris
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Carnivora; Plissipedia; Canidae; Canis.
REFERENCE 1 (bases 1 to 402)
AUTHORS Sim,G., Yang,S., Dretz,M.J. and Wonderling,R.S.
TITLE Canine and feline immunoregulatory proteins, nucleic acid molecules and method of using the same
JOURNAL Patent: JP 2002516104-A 67 04-JUN-2002;
HESKA CORP
COMMENT OS Canis familiaris (dog)
PN JP 2002516104-A/67
PD 04-JUN-2002
PF 28-MAY-1999 JP 2000551002
PR 29-MAY-1998 US 60/087306
PI GEKKEB SIM,SHUMIN YANG,MATTHEW J DREITZ,RAMANI S WONDERLING PC
C12N15/09,A61K31/7088,A61K38/00,A61K38/21,A61K39/00,A61K39/395,
PC A61K39/395,
PC A61K45/00,A61K48/00,A61P37/02,A61P37/04,C07K14/475,C07K14/535,
PC C07K14/54,
PC C07K14/56,C07K14/705,C07K16/24,C07K16/28,C12N1/21,C12N5/10, PC
G01N33/15,
PC G01N33/50,C12N15/00,A61K37/02,A61K37/66,C12N5/00 CC Canine
and feline immunoregulatory proteins, nucleic acid CC
molecules and
CC method of using the same
FH Key Location/Qualifiers
FT source 1..402
Location/Qualifiers
1..402 /organism='Canis familiaris (dog)'.
/mol_type='genomic DNA'
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Query Match 100.0%; Score 345; DB 6; Length 402;
Best Local Similarity 100.0%; Pred. No. 4,7e-83;
Matches 345; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

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Db 345 TTTGCTGTAGAAAATCCCATGATAGACTGTGCGAGAGACTTGTGACACTGCTCTCCACT 286

QY 61 CATGAACCTGGCTGATAGAGCGATGGGAACCTGATGATTTCTACTCTCTGAAAATATAAAT 120

Db 285 CATGAACCTGGCTGATAGAGCGATGGGAACCTGATGATTTCTACTCTCTGAAAATATAAAT 226

QY 121 CACCAACTGTGCACTTAAAGAGTTTTCAGGGTATAGACATTTGAAGAACCAACTGCC 180

Db 225 CACCAACTGTGCACTTAAAGAGTTTTCAGGGTATAGACATTTGAAGAACCAACTGCC 166

QY 181 CACGGGAGGCTGTGATATAATTCCTGATGATTTCTTTAATATAAAGAACATAGAG 240

Db 165 CACGGGAGGCTGTGATATAATTCCTGATGATTTCTTTAATATAAAGAACATAGAG 106

QY 241 CGCCAAAAAAGGTGTGACGAGGAAAGATGAGAGTGCACAAAGTTCTAGACTACTG 300

Db 105 CGCCAAAAAAGGTGTGACGAGAAAGATGAGAGTGAACAAAGTTCCTAGACTACCTG 46

Qy 301 CAAGTATTTCTTGCTGTATTAACACCGAGTGCACCGGAAAT 345

Db 45 CAAGTATTTCTTGCTGTATTAACACCGAGTGCACCGGAAAGT 1

RESULT 9

AR241538

LOCUS AR241538 402 bp DNA linear PAT 20-DEC-2002

DEFINITION Sequence 83 from patent US 6471957.

ACCESSION AR241538

VERSION AR241538.1 GI:27287247

KEYWORDS

SOURCE Unknown.

ORGANISM Unknown.

REFERENCE 1 (bases 1 to 402)

AUTHORS Sim,G.-K., Yang,S., Dreitz,M.J. and Wonderling,R.S.

TITLE Canine IL-4 immunoregulatory proteins and uses thereof

JOURNAL Patent: US 6471957-A 83 29-OCT-2002;

FEATURES

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ORIGIN

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Best Local Similarity 100.0%; Pred. No. 4,7e-83;

Matches 345; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

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Qy 61 CATGAACCTTGCTGTATGAGCGATGGAACTGATGATTTCTTACTCCTGAAATAAAT 120

Db 118 CATGAACCTTGCTGTATGAGCGATGGAACTGATGATTTCTTACTCCTGAAATAAAT 177

Qy 121 CACCACTGTGATTAAGAAAGTTTTCAGGGTATAGACACATTGAAGAACCAACTGCC 180

Db 178 CACCACTGTGATTAAGAAAGTTTTCAGGGTATAGACACATTGAAGAACCAACTGCC 237

Qy 181 CACGGGAGGCTGTGATTAACCTATTCGAAACCTTGTCTTTAATTAAGAACACTAGAG 240

Db 238 CACGGGAGGCTGTGATTAACCTATTCGAAACCTTGTCTTTAATTAAGAACACTAGAG 297

Qy 241 CGCCAAAAAAGGTGTGACGAGAAAGATGAGAGTGAACAAAGTTCCTAGACTACCTG 300

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Qy 301 CAAGTATTTCTTGCTGTATTAACACCGAGTGCACCGGAAAGT 345

Db 358 CAAGTATTTCTTGCTGTATTAACACCGAGTGCACCGGAAAGT 402

RESULT 10

AR241539

LOCUS AR241539 402 bp DNA linear PAT 20-DEC-2002

DEFINITION Sequence 84 from patent US 6471957.

ACCESSION AR241539

VERSION AR241539.1 GI:27287248

KEYWORDS

SOURCE Unknown.

ORGANISM Unknown.

REFERENCE 1 (bases 1 to 402)

AUTHORS Sim,G.-K., Yang,S., Dreitz,M.J. and Wonderling,R.S.

TITLE Canine IL-4 immunoregulatory proteins and uses thereof

JOURNAL Patent: US 6471957-A 84 29-OCT-2002;

FEATURES

source

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/organism="unknown"

ORIGIN /mol_type="genomic DNA"

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Best Local Similarity 100.0%; Pred. No. 4,7e-83;

Matches 345; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 TTGCTGTAGAAATCCCATGAATAGACTGTGTGACAGACCTTGACACTGCTCCACT 60

Db 345 TTGCTGTAGAAATCCCATGAATAGACTGTGTGACAGACCTTGACACTGCTCCACT 286

Qy 61 CATGAACCTTGCTGTATGAGCGATGGAACTGATGATTTCTTACTCCTGAAATAAAT 120

Db 285 CATGAACCTTGCTGTATGAGCGATGGAACTGATGATTTCTTACTCCTGAAATAAAT 226

Qy 121 CACCACTGTGATTAAGAAAGTTTTCAGGGTATAGACACATTGAAGAACCAACTGCC 180

Db 225 CACCACTGTGATTAAGAAAGTTTTCAGGGTATAGACACATTGAAGAACCAACTGCC 166

Qy 181 CACGGGAGGCTGTGATTAACCTATTCGAAACCTTGTCTTTAATTAAGAACACTAGAG 240

Db 165 CACGGGAGGCTGTGATTAACCTATTCGAAACCTTGTCTTTAATTAAGAACACTAGAG 106

Qy 241 CGCCAAAAAAGGTGTGACGAGAAAGATGAGAGTGAACAAAGTTCCTAGACTACCTG 300

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Qy 301 CAAGTATTTCTTGCTGTATTAACACCGAGTGCACCGGAAAGT 345

Db 45 CAAGTATTTCTTGCTGTATTAACACCGAGTGCACCGGAAAGT 1

RESULT 11

AR254494

LOCUS AR254494 402 bp DNA linear PAT 20-DEC-2002

DEFINITION Sequence 83 from patent US 6482403.

ACCESSION AR254494

VERSION AR254494.1 GI:27303382

KEYWORDS

SOURCE Unknown.

ORGANISM Unknown.

REFERENCE 1 (bases 1 to 402)

AUTHORS Sim,G.-K., Yang,S., Dreitz,M.J. and Wonderling,R.S.

TITLE Canine IL-13 immunoregulatory proteins and uses thereof

JOURNAL Patent: US 6482403-A 83 19-NOV-2002;

FEATURES

source

1..402

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ORIGIN

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Best Local Similarity 100.0%; Pred. No. 4,7e-83;

Matches 345; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 TTGCTGTAGAAATCCCATGAATAGACTGTGTGACAGACCTTGACACTGCTCCACT 60

Db 58 TTGCTGTAGAAATCCCATGAATAGACTGTGTGACAGACCTTGACACTGCTCCACT 117

Qy 61 CATGAACCTTGCTGTATGAGCGATGGAACTGATGATTTCTTACTCCTGAAATAAAT 120

Db 118 CATGAACCTTGCTGTATGAGCGATGGAACTGATGATTTCTTACTCCTGAAATAAAT 177

Qy 121 CACCACTGTGATTAAGAAAGTTTTCAGGGTATAGACACATTGAAGAACCAACTGCC 180

Db 178 CACCACTGTGATTAAGAAAGTTTTCAGGGTATAGACACATTGAAGAACCAACTGCC 237

Qy 181 CACGGGAGGCTGTGATTAACCTATTCGAAACCTTGTCTTTAATTAAGAACACTAGAG 240

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Qy 241 CGCCAAAAAAGGTGTGACGAGAAAGATGAGAGTGAACAAAGTTCCTAGACTACCTG 300

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Db	358	CAAGTATTCTTGTGTATATAACACCGAGTGCACCCGGAAGT	402
RESULT 12	AR254495/c	402 bp	DNA
LOCUS	AR254495	Sequence 84 from patent US 6482403.	linear
DEFINITION	AR254495		
ACCESSION	AR254495		
VERSION	AR254495.1	GI:27303383	
KEYWORDS			
SOURCE	Unknown.		
ORGANISM	Unknown.		
REFERENCE	1 (bases 1 to 402)		
AUTHORS	Slm, G.-K., Yang, S., Dreitz, M.J. and Wonderling, R.S.		
TITLE	Canine IL-13 Immunoregulatory proteins and uses thereof		
JOURNAL	Patent: US 6482403-A 84 19-NOV-2002;		
FEATURES	Location/Qualifiers		
source	1..402		
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Best Local Similarity	100.0%; Pred. No. 4,7e-83;		
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Db	345	TTTGCTGTAGAAAAATCCCATGATAGACTGTGTGCGAGACCTTGACACTGCTCTCACT	286
Qy	61	CATGGAACCTGTGCTGATAGGCGATGGGAACCTGATGATTTCTTACTCTCTGAAAATTAATAAT	120
Db	285	CATGGAACCTGTGCTGATAGGCGATGGGAACCTGATGATTTCTTACTCTCTGAAAATTAATAAT	226
Qy	121	CACCAACTGTGCATTAAGAAGTTTTCAGGGTATAGACACATTTGAAGAACCAACTGCC	180
Db	225	CACCAACTGTGCATTAAGAAGTTTTCAGGGTATAGACACATTTGAAGAACCAACTGCC	166
Qy	181	CACGGGAGCGCTGTGATTAACCTATTCCAAACTGTCTTTATATAAAGAACACATAGAG	240
Db	165	CACGGGAGCGCTGTGATTAACCTATTCCAAACTGTCTTTATATAAAGAACACATAGAG	106
Qy	241	CGCCAAAAAAGAGTGTGCAGGAGAAAGATGAGAGTGCACAAAGTTCTTAGACTACTG	300
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Db	45	CAAGTATTCTTGTGTATATAACACCGAGTGCACCCGGAAGT	1
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DEFINITION	AF331919		
ACCESSION	AF331919	GI:15919180	
VERSION	AF331919.1		
KEYWORDS			
SOURCE	Canis familiaris (dog)		
ORGANISM	Canis familiaris		
REFERENCE	Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Carnivora; Plissipedia; Canidae; Canis.		
AUTHORS	1 (bases 1 to 610)		
TITLE	Yang, S., Sellins, K.S., Weber, B. and McGall, C.		
JOURNAL	Canine interleukin-5: molecular characterization of the gene and expression of biologically active recombinant protein		
REFERENCE	J. Interferon Cytokine Res. 21 (6), 361-367 (2001)		
TITLE			
JOURNAL			

FEATURES	source
MEETING	21334408
PUBLISHED	11440633
REFERENCE	2 (bases 1 to 610)
AUTHORS	Yang, S.
TITLE	Direct Submission
JOURNAL	Submitted (22-DEC-2000) Immunology, Heeka Corporation, 1613 Prospect Parkway, Ft Collins, CO 80525, USA
ORIGIN	Location/Qualifiers
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Best Local Similarity	100.0%; Pred. No. 4,6e-83;
Matches 345; Conservative 0; Mismatches 0; Indels 0; Gaps 0;	
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QY	61 CATGAACCTTGAGCTGATAGGCGATGGGAACTGTAGATTCTTACTCTGAAAATATAAAT 120
Db	146 CATGAACCTTGAGCTGATAGGCGATGGGAACTGTAGATTCTTACTCTGAAAATATAAAT 205
QY	121 CACCAACTGTGCATTAAGAAGTTTTCAGGGTATAGACACATTGAAGAACCAACTGCC 180
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QY	181 CACGGGAGGCTGTGATTAACCTTTCCAAAATTGCTTTTAATAAAGAACACATAGAG 240
Db	266 CACGGGAGGCTGTGATTAACCTTTCCAAAATTGCTTTTAATAAAGAACACATAGAG 325
QY	241 CGCCAAAAAAGAGGTGTCAGAGAAAGATGAGAGTGAACAAGTTCCTAGACTACTG 300
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QY	301 CAAGTATTTCTTGCTGATTAACACCGAGTGAACACCGAAGT 345
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DEFINITION	Canine and feline immunoregulatory proteins, nucleic acid molecules
ACCESSION	BD211558
VERSION	BD211558.1 GI:33021328
KEYWORDS	JP 2002516104-A/64.
SOURCE	Canis familiaris (dog)
ORGANISM	Canis familiaris
REFERENCE	Bukaryola; Metacora; Chordata; Cranialata; Vertebrata; Euteleostomi; Mammalia; Euteleostomi; Carnivora; Fissipedae; Canidae; Canis.
AUTHORS	Sam, G., Yang, S., Dreitz, M. J. and Wondolting, R. S.
TITLE	Canine and feline immunoregulatory proteins, nucleic acid molecules
JOURNAL	and method of using the same
COMMENT	Patent: JP 2002516104-A 64 04-JUN-2002;
	HEKA CORP
	Canis familiaris (dog)

PN JP 2002516104-A/64
 PD 04-JUN-2002
 PR 28-MAY-1999 JP 2000551002
 PR 29-MAY-1998 US 60/087306
 PI GEKKEE SIM, SHUMIN YANG, MATTHEW J DREITZ, RAMANI S WONDERLING PC
 C12N15/09, A61K31/7088, A61K38/00, A61K39/00, A61K39/395,
 PC A61K39/395,
 PC A61K45/00, A61K48/00, A61P37/02, A61P37/04, C07K14/475, C07K14/535,
 PC C07K14/54,
 PC C07K14/56, C07K14/705, C07K16/24, C07K16/28, C12N1/21, C12N5/10, PC
 G01N33/15
 PC G01N33/50, C12N15/00, A61K37/02, A61K37/66, C12N5/00 CC Canine
 and feline immunoregulatory proteins, nucleic acid CC
 molecules and
 CC method of using the same
 FH Key Location/Qualifiers
 FT CDS (29)..(430).

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 /mol_type="genomic DNA"
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Query Match 100.0%; Score 345; DB 6; Length 610;
 Best Local Similarity 100.0%; Pred. No. 4, 6e-83;
 Matches 345; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 TTGCTGTAGAAAATCCCATGAAATAGACTGGTGCGAGAGACTTGACACTGCTCTCCACT 60
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 QY 61 CATGGAAGCTGGCTGATAGGCGATGGGAACTGATGATCTTCTACTCTCTGAAAAATAAAT 120
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 QY 181 CACGGGAGGCTGTGATAAACTATTCGAAAACCTGTCTTTAATAAAGAACACATAGAG 240
 DB 266 CACGGGAGGCTGTGATAAACTATTCGAAAACCTGTCTTTAATAAAGAACACATAGAG 325
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 DB 326 CGCCAAAAAAAAGCTGTGCGAGGAAAGATGAGAGTGAACAAAGTCTTGAATTAAGT 385
 QY 301 CAAGTATTTCTTGATTAATTAACACCGAGTGAACCGGAAAGT 345
 DB 386 CAAGTATTTCTTGATTAATTAACACCGAGTGAACCGGAAAGT 430

RESULT 15
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 LOCUS
 DEFINITION Canine and feline immunoregulatory proteins, nucleic acid molecules
 and method of using the same.
 ACCESSION BD211559
 VERSION BD211559.1 GI:33021329
 KEYWORDS JP 2002516104-A/65.
 SOURCE
 ORGANISM Canis familiaris (dog)
 Canis familiaris
 Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
 Mammalia; Eutheria; Carnivora; Fissipedia; Canidae; Canis.

REFERENCE

AUTHORS Sim, G., Yang, S., Dreitz, M. J. and Wonderling, R. S.
 TITLE Canine and feline immunoregulatory proteins, nucleic acid molecules
 and method of using the same
 JOURNAL Patent: JP 2002516104-A 65 04-JUN-2002;
 HESKA CORP
 OS Canis familiaris (dog)
 COMMENT PN JP 2002516104-A/65

PD 04-JUN-2002
 PR 28-MAY-1999 JP 2000551002
 PR 29-MAY-1998 US 60/087306
 PI GEKKEE SIM, SHUMIN YANG, MATTHEW J DREITZ, RAMANI S WONDERLING PC
 C12N15/09, A61K31/7088, A61K38/00, A61K39/00, A61K39/395,
 PC A61K39/395,
 PC A61K45/00, A61K48/00, A61P37/02, A61P37/04, C07K14/475, C07K14/535,
 PC C07K14/54,
 PC C07K14/56, C07K14/705, C07K16/24, C07K16/28, C12N1/21, C12N5/10, PC
 G01N33/15
 PC G01N33/50, C12N15/00, A61K37/02, A61K37/66, C12N5/00 CC Canine
 and feline immunoregulatory proteins, nucleic acid CC
 molecules and
 CC method of using the same
 FH Key Location/Qualifiers
 FT source 1. 610
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FEATURES
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 /organism="Canis familiaris"
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ORIGIN

Query Match 100.0%; Score 345; DB 6; Length 610;
 Best Local Similarity 100.0%; Pred. No. 4, 6e-83;
 Matches 345; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 TTGCTGTAGAAAATCCCATGAAATAGACTGGTGCGAGAGACTTGACACTGCTCTCCACT 60
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 QY 61 CATGGAAGCTGGCTGATAGGCGATGGGAACTGATGATCTTCTACTCTCTGAAAAATAAAT 120
 DB 465 CATGGAAGCTGGCTGATAGGCGATGGGAACTGATGATCTTCTACTCTCTGAAAAATAAAT 406
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 DB 285 CGCCAAAAAAAAGCTGTGCGAGGAAAGATGAGAGTGAACAAAGTCTTGAATTAAGT 226
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 DB 225 CAAGTATTTCTTGATTAATTAACACCGAGTGAACCGGAAAGT 181

Search completed: August 8, 2005, 05:12:05
 Job time : 1663.18 secs

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CC response in animals (particularly cats, dogs, horses and humans). They
 CC may be used to treat autoimmune or infectious diseases including
 CC allergies, tumours, inflammation and graft rejection, and to increase the
 CC response from a co-administered antigen. The nucleotide sequences can
 CC also be used for the recombinant production of a protein, while
 CC nucleotide fragments are useful as probes, as amplification primers and
 CC as sources of inhibitory therapeutics (e.g., antisense oligonucleotides).
 CC The proteins may be used to raise antibodies and to screen for modulators
 CC of activity, while the antibodies may be used in detection, and in drug
 CC targeting

XX Sequence 345 BP; 120 A; 68 C; 78 G; 79 T; 0 U; 0 Other;

Query Match 100.0%; Score 345; DB 3; Length 345;
 Best Local Similarity 100.0%; Pred. No. 5,6e-93;

Matches 345; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 TTTGCTGTAGAAAATCCCATGAATAGACTGTGGCAGACCTTGAACACTGCTCCACT 60
 DB 1 TTTGCTGTAGAAAATCCCATGAATAGACTGTGGCAGACCTTGAACACTGCTCCACT 60
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RESULT 2
 AA25551/c
 ID AA25551 standard; cDNA; 345 BP.

XX AA25551;

DT 14-MAR-2000 (first entry)

XX Canine mature Interleukin-5 (IL-5) cDNA complement.

KW Interleukin-5; IL-5; antibody; canine; inhibitor; immune response;

KW Immunoregulation; tumour; cancer; autoimmune disease; vaccine; ss.

XX Canis familiaris.

PN WO961618-A2.

PD 02-DEC-1999.

PF 28-MAY-1999; 99WO-US011942.

PR 29-MAY-1998; 98US-0087306P.

PA (HESK-) HESKA CORP.

PI Sim G, Yang S, Dreitz MJ, Wonderling RS;

XX WPI; 2000-072623/06.

XX P-PSDB; AAY58220.

PT Nucleic acids encoding immunoregulatory proteins from cats or dogs,

PT useful for treating or preventing e.g. tumors or autoimmune disease.
 XX Claim 11n; Page 228; 264pp; English.

XX Sequences AA255546-255551 represent cDNA sequences encoding canine
 CC Interleukin-5 (IL-5). The invention relates to canine IL-4, canine or
 CC feline IL-3 ligand, canine or feline CD40, canine or feline CD134 (CD40
 CC ligand), canine IL-5, canine IL-13, feline Interferon-alpha (IFN-alpha)
 CC and feline granulocyte macrophage colony-stimulating factor (GM-CSF), and
 CC nucleotides which encode these immunoregulatory proteins. The proteins,
 CC their associated nucleic acids, specific antibodies and inhibitors may be
 CC used as vaccines for therapeutic or prophylactic regulation of an immune
 CC response in animals (particularly cats, dogs, horses and humans). They
 CC may be used to treat autoimmune or infectious diseases including
 CC allergies, tumours, inflammation and graft rejection, and to increase the
 CC response from a co-administered antigen. The nucleotide sequences can
 CC also be used for the recombinant production of a protein, while
 CC nucleotide fragments are useful as probes, as amplification primers and
 CC as sources of inhibitory therapeutics (e.g., antisense oligonucleotides).
 CC The proteins may be used to raise antibodies and to screen for modulators
 CC of activity, while the antibodies may be used in detection, and in drug
 CC targeting

XX Sequence 345 BP; 79 A; 78 C; 68 G; 120 T; 0 U; 0 Other;

Query Match 100.0%; Score 345; DB 3; Length 345;
 Best Local Similarity 100.0%; Pred. No. 5,6e-93;

Matches 345; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 TTTGCTGTAGAAAATCCCATGAATAGACTGTGGCAGACCTTGAACACTGCTCCACT 60
 DB 345 TTTGCTGTAGAAAATCCCATGAATAGACTGTGGCAGACCTTGAACACTGCTCCACT 286
 QY 61 CATGGAATTGGCTGATAGCGATGGAACTGTGATGCTTCTACTCTGAAAATTAAT 120
 DB 285 CATGGAATTGGCTGATAGCGATGGAACTGTGATGCTTCTACTCTGAAAATTAAT 226
 QY 121 CACCACTGTGATTAAGAAAGTTTTCAGGGTATAGACATTTGAAGAACAACTGCC 180
 DB 225 CACCACTGTGATTAAGAAAGTTTTCAGGGTATAGACATTTGAAGAACAACTGCC 166
 QY 181 CACGGGAGGCTGTGATTAAGAAAGTTTTCAGGGTATAGACATTTGAAGAACAACTGCC 240
 DB 165 CACGGGAGGCTGTGATTAAGAAAGTTTTCAGGGTATAGACATTTGAAGAACAACTGCC 106
 QY 241 CGCCAAAATAAAAGTGTGAGAGGAAAGATGAGAGTGAACAAAGTCTAGACTACTG 300
 DB 105 CGCCAAAATAAAAGTGTGAGAGGAAAGATGAGAGTGAACAAAGTCTAGACTACTG 46
 QY 301 CAAGTATTTCTTGTTGTAATTAACACCGAGTGACACCGGAAAGT 345
 DB 45 CAAGTATTTCTTGTTGTAATTAACACCGAGTGACACCGGAAAGT 1

RESULT 3
 AA255548
 ID AA255548 standard; cDNA; 402 BP.

XX AA255548;

DT 14-MAR-2000 (first entry)

XX Canine Interleukin-5 (IL-5) cDNA coding region.

KW Interleukin-5; IL-5; antibody; canine; inhibitor; immune response;

KW Immunoregulation; tumour; cancer; autoimmune disease; vaccine; ss.

XX Canis familiaris.

PN WO961618-A2.

PD 02-DEC-1999.

PF 28-MAY-1999; 99WO-US011942.
XX
XX 29-MAY-1998; 98US-0087306P.
XX
XX (HESK-) HESKA CORP.
PA
PI Sim G, Yang S, Dreitz MJ, Wonderling RS;
XX
XX WPI; 2000-072623/06.
DR P-PSDB; AAY58219.
XX
XX Nucleic acids encoding immunoregulatory proteins from cats or dogs,
PT useful for treating or preventing e.g. tumors or autoimmune disease.
XX
XX Claim 1h; Page 225; 264pp; English.
XX
XX Sequences AA25546-25551 represent cDNA sequences encoding canine
CC interleukin-5 (IL-5). The invention relates to canine IL-4, canine or
CC feline IL-3 ligand, canine or feline CD40, canine or feline CD154 (CD40
CC ligand), canine IL-5, canine IL-13, feline interferon-alpha (IFN-alpha)
CC and feline granulocyte macrophage colony-stimulating factor (GM-CSF), and
CC nucleotides which encode these immunoregulatory proteins. The proteins,
CC their associated nucleic acids, specific antibodies and inhibitors may be
CC used as vaccines for therapeutic or prophylactic regulation of an immune
CC response in animals (particularly cats, dogs, horses and humans). They
CC may be used to treat autoimmune or infectious diseases including
CC allergies, tumors, inflammation and graft rejection, and to increase the
CC response from a co-administered antigen. The nucleotide sequences can
CC also be used for the recombinant production of a protein, while
CC nucleotide fragments are useful as probes, as amplification primers and
CC as sources of inhibitory therapeutics (e.g., antisense oligonucleotides).
CC The proteins may be used to raise antibodies (e.g., to screen for modulators
CC of activity, while the antibodies may be used in detection, and in drug
CC targeting
XX
SQ Sequence 402 BP; 129 A; 79 C; 93 G; 101 T; 0 U; 0 Other;
Query Match 100.0%; Score 345; DB 3; Length 402;
Best Local Similarity 100.0%; Pred. No. 66-93;
Matches 345; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
QY 1 TTGCTGTAGAAATCCCATGATGACTGTGGCAGAGACTTGACACTGCTTCCACT 60
DB 58 TTGCTGTAGAAATCCCATGATGACTGTGGCAGAGACTTGACACTGCTTCCACT 117
QY 61 CATGAACTTGGCTGATGAGGAGGAACTTGATGATCTTCTACTCCGAAATATAAAT 120
DB 118 CATGAACTTGGCTGATGAGGAGGAACTTGATGATCTTCTACTCCGAAATATAAAT 177
QY 121 CACCAACTGTGCATTAAGAAGTTTTCAGGGTATAGACATTTGAAGACCAACTGCC 180
DB 178 CACCAACTGTGCATTAAGAAGTTTTCAGGGTATAGACATTTGAAGACCAACTGCC 237
QY 181 CACGGGAGGCTGTGATTAACCTATTCCTGCTTCTTAAATAAGAACACATAGAG 240
DB 238 CACGGGAGGCTGTGATTAACCTATTCCTGCTTCTTAAATAAGAACACATAGAG 297
QY 241 CGCCAAAAAAGAGTGTGCGAGGAAAGATGAGAGTGAACAAAGTTCTTGACTACTG 300
DB 298 CGCCAAAAAAGAGTGTGCGAGGAAAGATGAGAGTGAACAAAGTTCTTGACTACTG 357
QY 301 CAAGATATTTCTTGATTAACACCGAGTGAACCGGGAAGT 345
DB 358 CAAGATATTTCTTGATTAACACCGAGTGAACCGGGAAGT 402
RESULT 4
ID AA25549/c
XX AA25549 standard; CDNA; 402 BP.
AC AA25549;
XX
DT 14-MAR-2000 (first entry)

XX
XX Canine interleukin-5 (IL-5) cDNA coding region complement.
DE
XX
XX Interleukin-5; IL-5; antibody; canine; inhibitor; immune response;
KW immunoregulation; tumour; cancer; autoimmune disease; vaccine; ss.
XX
XX Canis familiaris.
XX
XX WO961618-A2.
XX
XX 02-DEC-1999.
XX
XX 28-MAY-1999; 99WO-US011942.
PF 28-MAY-1999; 98US-0087306P.
XX
XX 29-MAY-1998; 98US-0087306P.
XX
XX (HESK-) HESKA CORP.
PA
PI Sim G, Yang S, Dreitz MJ, Wonderling RS;
XX
XX WPI; 2000-072623/06.
DR P-PSDB; AAY58219.
XX
XX Nucleic acids encoding immunoregulatory proteins from cats or dogs,
PT useful for treating or preventing e.g. tumors or autoimmune disease.
XX
XX Claim 1h; Page 226; 264pp; English.
XX
XX Sequences AA25546-25551 represent cDNA sequences encoding canine
CC interleukin-5 (IL-5). The invention relates to canine IL-4, canine or
CC feline IL-3 ligand, canine or feline CD40, canine or feline CD154 (CD40
CC ligand), canine IL-5, canine IL-13, feline interferon-alpha (IFN-alpha)
CC and feline granulocyte macrophage colony-stimulating factor (GM-CSF), and
CC nucleotides which encode these immunoregulatory proteins. The proteins,
CC their associated nucleic acids, specific antibodies and inhibitors may be
CC used as vaccines for therapeutic or prophylactic regulation of an immune
CC response in animals (particularly cats, dogs, horses and humans). They
CC may be used to treat autoimmune or infectious diseases including
CC allergies, tumors, inflammation and graft rejection, and to increase the
CC response from a co-administered antigen. The nucleotide sequences can
CC also be used for the recombinant production of a protein, while
CC nucleotide fragments are useful as probes, as amplification primers and
CC as sources of inhibitory therapeutics (e.g., antisense oligonucleotides).
CC The proteins may be used to raise antibodies (e.g., to screen for modulators
CC of activity, while the antibodies may be used in detection, and in drug
CC targeting
XX
SQ Sequence 402 BP; 101 A; 93 C; 79 G; 129 T; 0 U; 0 Other;
Query Match 100.0%; Score 345; DB 3; Length 402;
Best Local Similarity 100.0%; Pred. No. 66-93;
Matches 345; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
QY 1 TTGCTGTAGAAATCCCATGATGACTGTGGCAGAGACTTGACACTGCTTCCACT 60
DB 345 TTGCTGTAGAAATCCCATGATGACTGTGGCAGAGACTTGACACTGCTTCCACT 286
QY 61 CATGAACTTGGCTGATGAGGAGGAACTTGATGATCTTCTACTCCGAAATATAAAT 120
DB 285 CATGAACTTGGCTGATGAGGAGGAACTTGATGATCTTCTACTCCGAAATATAAAT 226
QY 121 CACCAACTGTGCATTAAGAAGTTTTCAGGGTATAGACATTTGAAGACCAACTGCC 180
DB 225 CACCAACTGTGCATTAAGAAGTTTTCAGGGTATAGACATTTGAAGACCAACTGCC 166
QY 181 CACGGGAGGCTGTGATTAACCTATTCCTGCTTCTTAAATAAGAACACATAGAG 240
DB 165 CACGGGAGGCTGTGATTAACCTATTCCTGCTTCTTAAATAAGAACACATAGAG 106
QY 241 CGCCAAAAAAGAGTGTGCGAGGAAAGATGAGAGTGAACAAAGTTCTTGACTACTG 300
DB 105 CGCCAAAAAAGAGTGTGCGAGGAAAGATGAGAGTGAACAAAGTTCTTGACTACTG 46

QY 301 CAAGTATTTCTGTGTATTAACACCGAGTGCACCCGAAAGT 345
 DB 45 CAAGTATTTCTGTGTATTAACACCGAGTGCACCCGAAAGT 1

RESULT 5
 AA25546 ID AA25546 standard; cDNA; 610 BP.

AA25546;

DT 14-MAR-2000 (first entry)

DE Canine interleukin-5 (IL-5) cDNA.

KM Interleukin-5; IL-5; antibody; canine; inhibitor; immune response;
 immunoregulation; tumour; cancer; autoimmune disease; vaccine; ss.

OS Canis familiaris.

FT Key Location/Qualifiers
 FT CDS 29..433
 FT /tag= a
 FT /product= "Canine IL-5"

PN WO9961618-A2.

PD 02-DEC-1999.

PF 28-MAY-1999; 99WO-US011942.

PR 29-MAY-1998; 98US-0087306P.

PA (HESK-) HESKA CORP.

PI Slim G, Yang S, Dreitz MJ, Wonderling RS;

DR WPI; 2000-072623/06.

DR P-PSDB; AAY58219.

PT Nucleic acids encoding immunoregulatory proteins from cats or dogs,
 useful for treating or preventing e.g. tumors or autoimmune disease.

PS Claim 1b; Page 223-224; 264pp; English.

CC Sequences AA25546-25551 represent cDNA sequences encoding canine
 CC interleukin-5 (IL-5). The invention relates to canine IL-4, canine or
 CC feline Flt-3 ligand, canine or feline CD40, canine or feline CD154 (CD40
 CC ligand), canine IL-5, canine IL-13, feline interferon-alpha (IFN-alpha)
 CC and feline granulocyte macrophage colony-stimulating factor (GM-CSF), and
 CC nucleotides which encode these immunoregulatory proteins. The proteins,
 CC their associated nucleic acids, specific antibodies and inhibitors may be
 CC used as vaccines for therapeutic or prophylactic regulation of an immune
 CC response in animals (particularly cats, dogs, horses and humans). They
 CC may be used to treat autoimmune or infectious diseases including
 CC allergies, tumours, inflammation and graft rejection, and to increase the
 CC response from a co-administered antigen. The nucleotide sequences can
 CC also be used for the recombinant production of a protein, while
 CC nucleotide fragments are useful as probes, as amplification primers and
 CC as sources of inhibitory therapeutics (e.g., antisense oligonucleotides).
 CC The proteins may be used to raise antibodies and to screen for modulators
 CC of activity, while the antibodies may be used in detection, and in drug
 CC targeting

CC Sequence 610 BP; 202 A; 114 C; 139 G; 155 T; 0 U; 0 Other;

CC Query Match 100.0%; Score 345; DB 3; Length 610;

CC Best Local Similarity 100.0%; Pred. No. 6.9e-93;

CC Matches 345; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 TTTGCTGTAGAAATCCCATGATAGACTGGTGCAGAGACTTGACACTGCTCCACT 60
 DB 86 TTTGCTGTAGAAATCCCATGATAGACTGGTGCAGAGACTTGACACTGCTCCACT 145

QY 61 CATGAACTTGGCTGTATAGCCGATGGAACTGATGATTCCTACTCTGAAAAATAAAAT 120
 DB 146 CATGAACTTGGCTGTATAGCCGATGGAACTGATGATTCCTACTCTGAAAAATAAAAT 205
 QY 121 CACCACTGTGCACTTAAGAAGTTTTCAAGGATAGACACANTGAAGAACCAACTGCC 180
 DB 206 CACCACTGTGCACTTAAGAAGTTTTCAAGGATAGACACATTGAAGAACCAACTGCC 265
 QY 181 CACGGAGAGCTGTGATTAACCTATTCAAAACTGTCTTTAATAAAGACACATAGAG 240
 DB 266 CACGGAGAGCTGTGATTAACCTATTCAAAACTGTCTTTAATAAAGACACATAGAG 325
 QY 241 CGCCAAAAAAGGTGTGCAGAGAAAGATGAGACAAAGTTCTTAGACTACCTG 300
 DB 326 CGCCAAAAAAGGTGTGCAGAGAAAGATGAGACAAAGTTCTTAGACTACCTG 385
 QY 301 CAAGTATTTCTGTGTATTAACACCGAGTGCACCCGAAAGT 345
 DB 386 CAAGTATTTCTGTGTATTAACACCGAGTGCACCCGAAAGT 430

RESULT 6
 AA25547/C ID AA25547 standard; cDNA; 610 BP.

AA25547;

DT 14-MAR-2000 (first entry)

DE Canine interleukin-5 (IL-5) cDNA complement.

KM Interleukin-5; IL-5; antibody; canine; inhibitor; immune response;
 immunoregulation; tumour; cancer; autoimmune disease; vaccine; ss.

OS Canis familiaris.

FT Key Location/Qualifiers
 FT CDS complement(178..582)
 FT /tag= a
 FT /product= "Canine IL-5"

PN WO9961618-A2.

PD 02-DEC-1999.

PF 28-MAY-1999; 99WO-US011942.

PR 29-MAY-1998; 98US-0087306P.

PA (HESK-) HESKA CORP.

PI Slim G, Yang S, Dreitz MJ, Wonderling RS;

DR WPI; 2000-072623/06.

DR P-PSDB; AAY58219.

PT Nucleic acids encoding immunoregulatory proteins from cats or dogs,
 useful for treating or preventing e.g. tumors or autoimmune disease.

PS Claim 1b; Page 224-225; 264pp; English.

CC Sequences AA25546-25551 represent cDNA sequences encoding canine
 CC interleukin-5 (IL-5). The invention relates to canine IL-4, canine or
 CC feline Flt-3 ligand, canine or feline CD40, canine or feline CD154 (CD40
 CC ligand), canine IL-5, canine IL-13, feline interferon-alpha (IFN-alpha)
 CC and feline granulocyte macrophage colony-stimulating factor (GM-CSF), and
 CC nucleotides which encode these immunoregulatory proteins. The proteins,
 CC their associated nucleic acids, specific antibodies and inhibitors may be
 CC used as vaccines for therapeutic or prophylactic regulation of an immune
 CC response in animals (particularly cats, dogs, horses and humans). They
 CC may be used to treat autoimmune or infectious diseases including
 CC allergies, tumours, inflammation and graft rejection, and to increase the

CC response from a co-administered antigen. The nucleotide sequences can
CC also be used for the recombinant production of a protein, while
CC nucleotide fragments are useful as probes, as amplification primers and
CC as sources of inhibitory therapeutics (e.g., antisense oligonucleotides).
CC The proteins may be used to raise antibodies and to screen for modulators
CC of activity, while the antibodies may be used in detection, and in drug
CC targeting

XX SQ Sequence 610 BP; 155 A; 139 C; 114 G; 202 T; 0 U; 0 Other;

Query Match 100.0%; Score 345; DB 3; Length 610;
Best Local Similarity 100.0%; Pred. No. 6,9e-93;

Matches 345; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

```
QY 1 TTCTCTGTAAGAAATCCCATGATAGACTGGGCGAGAGACCTTGACACTGCTCCACT 60
    |||
DB 525 TTCTCTGTAAGAAATCCCATGATAGACTGGGCGAGAGACCTTGACACTGCTCCACT 466
    |||
QY 61 CATGGAACCTTGCTGATAGGCGATGGGAACCTGATGATTCCTACTCCTGAAATATAAT 120
    |||
DB 465 CATGGAACCTTGCTGATAGGCGATGGGAACCTGATGATTCCTACTCCTGAAATATAAT 406
    |||
QY 121 CACCAACTGCTGATAGGCGATGGGAACCTGATGATTCCTACTCCTGAAATATAAT 180
    |||
DB 405 CACCAACTGCTGATAGGCGATGGGAACCTGATGATTCCTACTCCTGAAATATAAT 346
    |||
QY 181 CACGGGAGGCTGTGATTAACCTATTCGAAACTTGTCTTAATATAAGAACATAGAG 240
    |||
DB 345 CACGGGAGGCTGTGATTAACCTATTCGAAACTTGTCTTAATATAAGAACATAGAG 286
    |||
QY 241 CGCCAAAATAAGAGTGTGACGAGAAAGATGAGAGTGACAAAGTTCTAGACTACCTG 300
    |||
DB 285 CGCCAAAATAAGAGTGTGACGAGAAAGATGAGAGTGACAAAGTTCTAGACTACCTG 226
    |||
QY 301 CAAATATTTCTTGCTGATTAACACGAGTGACACCGGAAAGT 345
    |||
DB 225 CAAATATTTCTTGCTGATTAACACGAGTGACACCGGAAAGT 181
    |||
```

RESULT 7
AA74300

ID AA74300 standard; DNA; 405 BP.

XX AC AA74300;

XX DT 04-MAY-2001 (first entry)

XX DE Canine interleukin-5 coding sequence #1.

XX KW Dog; interleukin-5; IL-5; allergy; cancer; gene therapy;
inflammatory reaction; ds.

XX OS Canis sp.

XX PN MO200111049-A2.

XX PD 15-FEB-2001.

XX PF 09-AUG-2000; 2000WO-US021651.

XX PR 10-AUG-1999; 99US-00371615.

XX PA (IDEX-) IDEXX LAB INC.

XX PI Guo H, Lawton R, Wermer B, Aiyappa AP,

XX DR WPI; 2001-191542/19.

XX PS P-PSDB; AAB72615.

XX PT Novel canine interleukin 5 polynucleotide and polypeptides are used for
generating antibodies which are useful in treating allergies in dogs.
XX Claim 31; Page 46; 48bp; English.

XX The present invention provides the protein and coding sequences of the
CC canine interleukin-5 (IL-5) protein. This can be used to treat allergies,
CC cancer and inflammatory reactions in dogs. The present sequence is one
CC version of the IL-5 coding sequence shown in the specification

XX SQ Sequence 405 BP; 131 A; 77 C; 94 G; 103 T; 0 U; 0 Other;

Query Match 99.1%; Score 341.8; DB 4; Length 405;
Best Local Similarity 99.4%; Pred. No. 5,4e-92;

Matches 343; Conservative 0; Mismatches 2; Indels 0; Gaps 0;

```
QY 1 TTCTCTGTAAGAAATCCCATGATAGACTGGGCGAGAGACCTTGACACTGCTCCACT 60
    |||
DB 58 TTCTCTGTAAGAAATCCCATGATAGACTGGGCGAGAGACCTTGACACTGCTCCACT 117
    |||
QY 61 CATGGAACCTTGCTGATAGGCGATGGGAACCTGATGATTCCTACTCCTGAAATATAAT 120
    |||
DB 118 CATGGAACCTTGCTGATAGGCGATGGGAACCTGATGATTCCTACTCCTGAAATATAAT 177
    |||
QY 121 CACCAACTGCTGATAGGCGATGGGAACCTGATGATTCCTACTCCTGAAATATAAT 180
    |||
DB 178 CACCAACTGCTGATAGGCGATGGGAACCTGATGATTCCTACTCCTGAAATATAAT 237
    |||
QY 181 CACGGGAGGCTGTGATTAACCTATTCGAAACTTGTCTTAATATAAGAACATAGAG 240
    |||
DB 238 CACGGGAGGCTGTGATTAACCTATTCGAAACTTGTCTTAATATAAGAACATAGAG 297
    |||
QY 241 CGCCAAAATAAGAGTGTGACGAGAAAGATGAGAGTGACAAAGTTCTAGACTACCTG 300
    |||
DB 298 CGCCAAAATAAGAGTGTGACGAGAAAGATGAGAGTGACAAAGTTCTAGACTACCTG 357
    |||
QY 301 CAAATATTTCTTGCTGATTAACACGAGTGACACCGGAAAGT 345
    |||
DB 358 CAAATATTTCTTGCTGATTAACACGAGTGACACCGGAAAGT 402
    |||
```

RESULT 8
AA24265

ID AA24265 standard; DNA; 838 BP.

XX AC AA24265;

XX DT 31-MAR-2000 (first entry)

XX DE Porcine IL-5 DNA.

XX KW Pig; vaccine; cysticercosis; protective antigen; CC1; CC3; CC4;
renal cysticercosis; gamma interferon; IFN-gamma; interleukin 5; IL-5; ss.

XX OS Sus scrofa.

XX PN CN1231339-A.

XX PD 13-OCT-1999.

XX PF 29-JAN-1999; 99CN-00113447.

XX PR 29-JAN-1999; 99CN-00113447.

XX PA (UYTW-) UNIV NO 2 MILITARY MEDICAL PLA.

XX PI Sun S, Dai J;

XX DR WPI; 2000-087904/08.

XX PS Nucleic acid vaccine for cysticercosis co-contracted by human and pig.
Nucleic acid vaccine for cysticercosis co-contracted by human and pig.

XX Claim 3; Page 9; 21bp; Chinese.

XX This invention describes a novel nucleic acid vaccine for preventing and
curing human and pork cysticercosis. The invention involves the formation
of a eukaryotic expression plasmid from fusion transcript expression unit

CC consisting of three protective antigen genes (cc1, cc3 and cc4) of pig
 CC lentil cysticercus and coexpression unit of related cell factor gamma
 CC interferon (IFN-gamma) and pork interleukin 5 (IL-5) genes. The
 CC production and purification process of said nucleic acid vaccine is
 CC simple and convenient, the physical and chemical properties of the
 CC vaccine are stable, and the vaccine is easy to store and transport, and
 CC possesses effective immunological protective function for human and pig
 CC cysticercosis. This sequence represents the pig IL-5 gene used in the
 CC method of the invention

SQ Sequence 838 BP; 280 A; 148 C; 171 G; 239 T; 0 U; 0 Other;

Query Match 83.9%; Score 289.6; DB 3; Length 838;

Best Local Similarity 90.1%; Pred. No. 2.9e-76;

Matches 310; Conservative 0; Mismatches 34; Indels 0; Gaps 0;

QY 2 TTGCTGTAAGAAATCCCATGATAGACTGGGAGAGACCTTGACACTGCTCCACTC 61
 DB 103 TTGCTGTAAGAAATCCCATGATAGACTGGGAGAGACCTTGACACTGCTCCACTC 162
 QY 62 ATCGAAGTGGCTGATAGAGGAGTGGAACTGATGATTCCTACTCTGAAATTAATATC 121
 DB 163 ATGGAAGTCTGATAGAGGAGGAGAACTGATGATTCCTACTCTGAAATTAATATC 222
 QY 122 ACCAAGTGTGATTAAGAAATTTTCAAGGATATGACACTGGAACCAATGCTCC 181
 DB 223 ACCAAGTGTGATTAAGAAATTTTCAAGGATATGACACTGGAACCAATGCTCC 282
 QY 182 ACCGAGGAGGCTGATAGAACTATTCGAAATCTGCTTAATTAAGAAACACTAGAGC 241
 DB 283 CGGAGGAGGCTGATAGAAATTTTCAAGGATATGACACTGGAACCAATGCTCC 342
 QY 242 GCCAAGTGTGATTAAGAAATTTTCAAGGATATGACACTGGAACCAATGCTCC 301
 DB 343 GCCAAGTGTGATTAAGAAATTTTCAAGGATATGACACTGGAACCAATGCTCC 402
 QY 302 AAGTATTTCTGCTGATTAAGAACTGATGATTCCTACTCTGAAATTAATATC 345
 DB 403 AAGTATTTCTGCTGATTAAGAACTGATGATTCCTACTCTGAAATTAATATC 446

RESULT 9

AAFT4306 standard; DNA; 393 BP.

AC AAF74306;
 XX
 DT 04-MAY-2001 (first entry)
 XX
 DE Canine interleukin-5 coding sequence #3.
 XX
 KM Dog; interleukin-5; IL-5; allergy; cancer; gene therapy;
 KM inflammatory reaction; ds.
 XX
 OS Canis sp.
 XX
 PN MO20011049-A2.
 PD 15-FEB-2001.
 XX
 PF 09-AUG-2000; 2000MO-US021651.
 XX
 PR 10-AUG-1999; 99US-00371615.
 XX
 PA (IDEX-) IDEXX LAB INC.
 XX
 PI Guo H, Lawton R, Wermer B, Aiyappa AP;
 XX WPI; 2001-191542/19.
 DR
 XX Novel canine interleukin 5 polynucleotide and polypeptides are used for
 PT generating antibodies which are useful in treating allergies in dogs.
 XX

PS Claim 1; Page 35; 48pp; English.

XX The present invention provides the protein and coding sequences of the
 CC canine interleukin-5 (IL-5) protein. This can be used to treat allergies,
 CC cancer and inflammatory reactions in dogs. The present sequence is one
 CC version of the IL-5 coding sequence shown in the specification

SQ Sequence 393 BP; 128 A; 82 C; 86 G; 97 T; 0 U; 0 Other;

Query Match 83.3%; Score 287.4; DB 4; Length 393;

Best Local Similarity 99.7%; Pred. No. 1e-75;

Matches 288; Conservative 0; Mismatches 1; Indels 0; Gaps 0;

QY 46 ACACTGCTCTGCACTGATGGAAGTGGATAGAGGAGAACTGATGATTCCTACT 105
 DB 1 ACACTGCTCTGCACTGATGGAAGTGGATAGAGGAGAACTGATGATTCCTACT 60
 QY 106 CCGAAGTAAATTAATTAATTAATTAATTAATTAATTAATTAATTAATTAATTA 165
 DB 61 CCGAAGTAAATTAATTAATTAATTAATTAATTAATTAATTAATTAATTAATTA 120
 QY 166 AAGAACCAACTGCGGAGGAGGCTGATTAATTAATTAATTAATTAATTAATTA 225
 DB 121 AAGAACCAACTGCGGAGGAGGCTGATTAATTAATTAATTAATTAATTAATTA 180
 QY 226 AAGAACCAACTGCGGAGGAGGCTGATTAATTAATTAATTAATTAATTAATTA 285
 DB 181 AAGAACCAACTGCGGAGGAGGCTGATTAATTAATTAATTAATTAATTAATTA 240
 QY 286 TTCTAGACTGCTGCAAGTATTTCTGCTGATTAATTAATTAATTAATTAATTA 334
 DB 241 TTCTAGACTGCTGCAAGTATTTCTGCTGATTAATTAATTAATTAATTAATTA 289

RESULT 10

AAT50756 standard; cDNA; 399 BP.

AC AAT50756;
 XX
 DT 17-OCT-2003 (revised)
 DT 24-SEP-1997 (first entry)
 XX
 DE Ovine IL-5 cDNA.
 XX
 KM Cytokine; ovine; sheep; interleukin-5; interleukin-12; IL-5; IL-12;
 KM livestock; cow; stress; transport; vaccine adjuvant; veterinary; cancer;
 KM immunosuppression; allergy; reproductive system; growth; early maturity;
 KM antibody; diagnosis; immunopotentiator;
 KM early haematopoietic progenitor cell; cytotoxic cell; thymocyte;
 KM secretion; IgM; IgA; bacterial endotoxin; gamma-interferon; ss.
 XX
 OS Ovis aries.
 XX
 PN WO9700321-A1.
 PD 03-JAN-1997.
 XX
 PF 14-JUN-1996; 96WO-AU000360.
 XX
 PR 14-JUN-1995; 95AU-00003502.
 PR 27-OCT-1995; 95AU-00006244.
 XX
 PA (CSIR) COMMONWEALTH SCI & IND RES ORG.
 XX
 PI Seow H, Wood P;
 XX WPI; 1997-077528/07.
 DR P-PSDB; AAM08479.
 XX
 XX Nucleic acid encoding ovine interleukin-5 or -12 - used as vaccine
 PT adjuvants and to treat or prevent microbial infections in livestock.
 XX

PS Claim 6; Page 41-42; 78pp; English.

XX The sequences given in AAT50755-56 encode ovine interleukin-5 (IL-5).

CC Ovine IL-5 or IL-12 are used to treat and/or prevent infections in

CC livestock (esp. cows and sheep), particularly where the animals are

CC stressed, e.g. during transport. IL-5 and IL-12 can also be used as

CC adjuvants in vaccines for veterinary use (partic. weakly immunogenic

CC subunit or synthetic peptide vaccines). They may also be used to treat

CC cancer, immunosuppression and allergy, to enhance/suppress the

CC reproductive system and to promote growth or early maturity. Optionally

CC interleukin can be delivered from constructs or delivery cells and

CC antibodies are useful in enzyme immunoassays for rapid diagnosis of

CC infection. The interleukins are immunopotentiators, especially IL-5

CC promotes growth of early haematopoietic progenitor cells and generation

CC of cytotoxic cells from thymocytes, also it stimulates production and

CC secretion of IgM and IgA (in synergism with bacterial endotoxin). IL-12

CC induces production of gamma-interferon by, and proliferation of, T and NK

CC cells and increases the (non-)specific cytolytic lymphocyte response. The

CC genetic constructs can also be used for in vitro production of IL-5 or -

CC 12. (Updated on 17-OCT-2003 to standardise OS field)

XX

SQ Sequence 399 BP; 130 A; 77 C; 93 G; 99 T; 0 U; 0 Other;

Query Match 79.7%; Score 274.8; DB 2; Length 399;

Best Local Similarity 87.7%; Pred. No. 6,1e-72;

Matches 300; Conservative 0; Mismatches 42; Indels 0; Gaps 0;

QY 3 TGCCTGTGAAAATCCCATGATAGACTGTGGCAGAGACCTTGACATGCTCTCCACTCA 62

DB 54 TGCCTGTGAAAAGTCAATGATAGACTGTGGCAGAGACCTTGACATGCTCTCCACTCA 113

QY 63 TCGAAGTGTGCTAGTAGGCGATGGGAACTGATGATCTCTCTCTGAAATTAATAATCA 122

DB 114 TCAAACTCTGTGTAGTGATGGAACTTATGATTTCTCTCTCCAGCATCAATCA 173

QY 123 CCAACTGTGATTAAGAAGTTTTCAGGGTATAGACATTTGAAGAACCAAACTGCCCA 182

DB 174 CCAACTATGATTAAGAAGTCTTTTCAGGGATAGACATTTGAAGAACCAAACTGCCCA 233

QY 183 CGGGAGAGCTGTGATTAACCTATTTCCAAACTTGTCTTTAATAAAGAACATAGACG 242

DB 234 AGGGGATGCTGTGAAAATAATTTCCGAATTTGCTTTAATAAAGATTCATAGACT 293

QY 243 CCAAAAAAAGAGTGTGAGAGAGAAAGATGAGACATGCAAGTCTTCACTGCTGCA 302

DB 294 CCAAAAAAAGAGTGTGAGAGAGAAAGATGAGACATGCAAGTCTTCACTGCTGCA 353

QY 303 AGTATTTCTGTGTATTAACACCGAGTGCACACCGGAAG 344

DB 354 AGTTTCTCTGTGTGATTAACACGAGTGCACGAGTGCAGTGAAG 395

RESULT 11

AAT50755

ID AAT50755 standard; DNA; 520 BP.

XX

AC AAT50755;

DT 17-OCT-2003 (revised)

DT 24-SEP-1997 (first entry)

XX

DB Ovine IL-5 gene.

XX

KM Cytokine; ovine; sheep; interleukin-5; interleukin-12; IL-5; IL-12;

KM livestock; cow; stress; transport; vaccine adjuvant; veterinary; cancer;

KM immunosuppression; allergy; reproductive system; growth; early maturity;

KM antibody; diagnosis; immunopotentiator;

KM early haematopoietic progenitor cell; cytotoxic cell; thymocyte;

KM secretion; IgM; IgA; bacterial endotoxin; gamma-interferon; ss.

XX

OS Ovis aries.

XX

FH Key Location/Qualifiers

FT CDS 46..444

FT /*cag= a

FT /product= "Ovine_IL-5"

FT 46..183

FT exon

FT /*cag= b

FT /number= 1

FT exon

FT 184..216

FT /*cag= c

FT /number= 2

FT exon

FT 217..345

FT /*cag= d

FT /number= 3

FT exon

FT 346..480

FT /*cag= e

FT /number= 4

XX

PN W09700321-A1.

XX

PD 03-JAN-1997.

XX

PF 14-JUN-1996; 96WO-AU000360.

XX

PR 14-JUN-1995; 95AU-00003502.

PR 27-OCT-1995; 95AU-00006244.

XX

PA (CSIR) COMMONWEALTH SCI & IND RES ORG.

XX

PI Seow H, Wood P;

XX

DR WP1; 1997-077528/07.

XX

XX P-PSDB; AAM08479.

XX

PT Nucleic acid encoding ovine interleukin-5 or -12 - used as vaccine

PT adjuvants and to treat or prevent microbial infections in livestock.

XX

PS Claim 6; Page 39-40; 78pp; English.

XX

CC The sequences given in AAT50755-56 encode ovine interleukin-5 (IL-5).

CC Ovine IL-5 or IL-12 are used to treat and/or prevent infections in

CC livestock (esp. cows and sheep), particularly where the animals are

CC stressed, e.g. during transport. IL-5 and IL-12 can also be used as

CC adjuvants in vaccines for veterinary use (partic. weakly immunogenic

CC subunit or synthetic peptide vaccines). They may also be used to treat

CC cancer, immunosuppression and allergy, to enhance/suppress the

CC reproductive system and to promote growth or early maturity. Optionally

CC interleukin can be delivered from constructs or delivery cells and

CC antibodies are useful in enzyme immunoassays for rapid diagnosis of

CC infection. The interleukins are immunopotentiators, especially IL-5

CC promotes growth of early haematopoietic progenitor cells and generation

CC of cytotoxic cells from thymocytes, also it stimulates production and

CC secretion of IgM and IgA (in synergism with bacterial endotoxin). IL-12

CC induces production of gamma-interferon by, and proliferation of, T and NK

CC cells and increases the (non-)specific cytolytic lymphocyte response. The

CC genetic constructs can also be used for in vitro production of IL-5 or -

CC 12. (Updated on 17-OCT-2003 to standardise OS field)

XX

SQ Sequence 520 BP; 166 A; 99 C; 124 G; 131 T; 0 U; 0 Other;

Query Match 79.7%; Score 274.8; DB 2; Length 520;

Best Local Similarity 87.7%; Pred. No. 6,7e-72;

Matches 300; Conservative 0; Mismatches 42; Indels 0; Gaps 0;

QY 3 TGCCTGTGAAAATCCCATGATAGACTGTGGCAGAGACCTTGACATGCTCTCCACTCA 62

DB 99 TGCCTGTGAAAAGTCAATGATAGACTGTGGCAGAGACCTTGACATGCTCTCCACTCA 158

QY 63 TCGAAGTGTGCTAGTAGGCGATGGGAACTGATGATCTCTCTCTGAAATTAATAATCA 122

DB 159 TCAAACTCTGTGTAGTGATGGAACTTATGATTTCTCTCTCCAGCATCAATCA 218

QY 123 CCAACTGTGATTAAGAAGTTTTCAGGGTATAGACATTTGAAGAACCAAACTGCCCA 182

DB 219 CCAACTATGATTAAGAAGTCTTTTCAGGGATAGACATTTGAAGAACCAAACTGCCCA 278

QY 183 CCGGAGAGCTGTGATTAATACTATTCCAAACTTGCTTTATATAAGACACATAGACG 242
 DB 279 AGGGGATGCTGTGAAAAAATATTCGAACTGTCTTTATATAAAGATATACAGACT 338
 QY 243 CCAAAAAAAGAGTGTGACGAGAAAGATGAGAGTGACAAAGTCTTACATCTACGCA 302
 DB 339 CCAAAAAAAGAGTGTGAGAGAAAGATGAGAGTGATTAACAAATCTCTGACATCTGCA 398
 QY 303 AGTATTTCTGTGTATTAATAACCGAGTGACACCGGAAAG 344
 DB 399 AGTTTCTGTGTGTGATTAACACAGAGTGACATGGAAG 440
 RESULT 12
 ID AAA34857 standard; DNA; 816 BP.
 XX AAA34857;
 AC
 XX 28-JUL-2000 (first entry)
 DT
 XX
 DB Human adenosine receptor related polynucleotide SEQ ID NO:2546.
 DE
 XX Human; adenosine receptor; low adenosine antisense oligonucleotide;
 KW phosphorothioate; impaired respiration; inflammation; allergy;
 KW allergic disease; bronchoconstriction; inhibitor; antiinflammatory;
 KW antiallergic; anesthetic; cyostatic; analgesic; impaired airway;
 KW lung disease; ischaemic condition; pulmonary vasoconstriction; asthma;
 KW respiratory distress syndrome; pain; cystic fibrosis; emphysema;
 KW pulmonary hypertension; chronic obstructive pulmonary disease; COPD;
 KW cancer; leukemia; lymphoma; carcinoma; metastasis; ss.
 XX
 OS Homo sapiens.
 XX
 PN WO200009525-A2.
 PD 24-FEB-2000.
 XX
 PF 03-AUG-1999; 99WO-US017712.
 XX
 PR 03-AUG-1998; 98US-0095212P.
 XX
 PA (UYEC-) UNIV EAST CAROLINA.
 XX
 PI Nyce JW;
 XX
 DR WPI: 2000-205971/18.
 XX
 PT New antisense oligonucleotides useful for treating e.g. pulmonary
 PT vasoconstriction, inflammation, allergies, asthma, hypertension,
 PT bronchitis, emphysema, respiratory distress syndrome, ischemia or
 PT cancers.
 XX
 PS Disclosure: Page 716; 1343pp; English.
 XX
 CC The present invention describes a new composition comprising an antisense
 CC oligonucleotide (ON) with low adenosine (up to 15%), which targets
 CC nucleic acids involved in bronchoconstriction, allergies, and/or
 CC inflammation. The ON can have antiinflammatory, antiallergic,
 CC antiaesthetic, cyostatic and analgesic activities. The compositions are
 CC useful for the treatment of diseases associated with inflammation,
 CC impaired airways, including lung disease and diseases whose secondary
 CC effects afflict the lungs of a subject. They can be used for treating
 CC e.g. ischemic conditions, pulmonary vasoconstriction, allergies, asthma,
 CC impaired respiration, respiratory distress syndrome, pain, cystic
 CC fibrosis, pulmonary hypertension, emphysema, chronic obstructive
 CC pulmonary disease (COPD), and cancers such as leukaemias, lymphomas,
 CC carcinomas, and cancers which may metastasize to the lungs, including
 CC breast and prostate cancer. The reduction of the adenosine content of the
 CC ONs reduces side effects. The A-containing ONs break down with the
 CC release of deoxyadenosine which activates adenosine receptors causing
 CC bronchoconstriction and inflammation. AAA32313 to AAA5312 represent the

CC nucleotide sequences given in the sequence listing from the present
 CC invention, which correspond to SEQ ID NO:1 to 2815, and then the last 185
 CC sequences are also called SEQ ID NO:1 to 185, but the sequences differ
 CC from the previously named sequences. SEQ ID NO:11 to 1680 (AAA3232 to
 CC AAA33992) are specifically claimed ONs from the present invention. N.B.
 CC Sequences given in the disclosure of the present invention do not match
 CC up with their corresponding SEQ ID NO: sequences given in the sequence
 CC listing
 XX
 QY Sequence 816 BP; 277 A; 137 C; 164 G; 238 T; 0 U; 0 Other;
 DB
 QY Query Match 67.1%; Score 231.4; DB 3; Length 816;
 DB Best Local Similarity 80.4%; Pred. No. 7.6e-59;
 DB Matches 271; Conservative 0; Mismatches 66; Indels 0; Gaps 0;
 QY 9 AGAAAAATCCCATGAATAGACTGGTGACAGACCTTGACACTGCTCTCCATCATGAAAC 68
 DB 110 AGAAATTCACCAAGTGACTTGGTGAAGAGACCTTGGACGTCTTCTACTCATGAAAC 169
 QY 69 TTGGCTGATAGCGATGAGGAACTGATGATTCCTACTCTGAAAAATTAATACCAACT 128
 DB 170 TCTGCTGATAGCCAAATGAGACTCTGAGATTCTCTGTTCAATTAATTAATCACT 229
 QY 129 GTGCATTAAAGAGTTTTCAGGGGTATAGACATTAAGAAACCAACTGCCACGGAGG 188
 DB 230 GTGCACAGAAAGATCTTTCAGGAAATAGCACACTGAGAGTCAAACTGTGCAAGGGG 289
 QY 189 GGGCTGTGATTAACATATTCGAAACTTGTCTTTAATTAAGAAACACATAGAGCGCAAAA 248
 DB 290 TACTGTGAAAGACTATTCAAAACTTGTCTTAATTAAGAAATATCATGACGGCAAAA 349
 QY 249 AAAAAGGTGTGACGAGAAAGATGAGAGTGAACAAAGTCTGTAGCTACTGTCAAGTATT 308
 DB 350 AAAAAGGTGTGAGAAAGAAAGACGAGAGATTAACCAATTCCTAGACTACTGCAAGATT 409
 QY 309 TCTTGGTATTAATAACACGAGTGAACACCGGAAAGT 345
 DB 410 TCTTGGTATTAATAACACGAGTGAATTAATAGAAAGT 446
 RESULT 13
 ID AAA13338 standard; cDNA; 816 BP.
 XX
 AC AAA13338;
 XX
 DT 25-JUL-2000 (first entry)
 XX
 DB Human interleukin-5 (IL-5) nucleotide sequence.
 XX
 KW Human; interleukin-5; IL-5; inflammatory disease; asthma; eczema;
 KW antisense oligonucleotide; allergic rhinitis; inflammatory skin disease;
 KW allergic conjunctivitis; inhibitor; ss.
 XX
 OS Homo sapiens.
 XX
 PN US6048726-A.
 PD 11-APR-2000.
 XX
 PF 15-MAY-1998; 98US-00079839.
 XX
 PR 15-MAY-1998; 98US-00079839.
 XX
 PA (WEIT/) WEITMAN J K.
 PA (KARI/) KARIM A S.
 XX
 PI Weitman JK, Karim AS;
 XX
 DR WPI: 2000-302784/26.
 XX
 PT Oligonucleotide comprising non-natural internucleoside linkage, useful
 PT for inhibiting interleukin-5 expression and treating inflammatory

PT diseases, asthma, allergic rhinitis, allergic conjunctivitis.
XX
PS Disclosure; Col 3-4; 11pp; English.
XX
CC This sequence represents the human interleukin-5 (IL-5) encoding
CC nucleotide sequence. Interleukin-5 is involved in eosinophilic
CC inflammation and inflammatory disorders. The present invention relates to
CC an IL-5 antisense oligonucleotide (see AAI3337) which inhibits the
CC expression of IL-5. The antisense oligonucleotide has at least one non-
CC natural internucleoside linkage. The oligonucleotide is able to inhibit
CC IL-5 secretion in a dose dependent manner, and is useful for inhibiting
CC IL-5 expression and therefore treating inflammatory diseases, asthma,
CC allergic rhinitis, allergic conjunctivitis and inflammatory skin diseases
CC such as eczema
XX
SQ Sequence 816 BP; 277 A; 137 C; 164 G; 238 T; 0 U; 0 Other;
XX
Query Match 67.1%; Score 231.4; DB 3; Length 816;
Best Local Similarity 80.4%; Pred. No. 7.6e-59;
Matches 271; Conservative 0; Mismatches 66; Indels 0; Gaps 0;
XX
QY 9 AGAATATCCCATGATAGTCTGTGGCAGAGACCTTGACCTGCTCCACTCATTCGAC 68
DB 110 AGAATATCCCATGATAGTCTGTGGCAGAGACCTTGACCTGCTCCACTCATTCGAC 169
QY 69 TTGGCTGATAGCGGATGGAACCTGATGATCTCTACTCTGAAATATAATACCAACT 128
DB 170 TCTGCTATAGCCATAGTGAAGCTGAGAGATCTGCTTCTTACTATATAATACCAACT 229
QY 129 GTGATTAAGAGAGTTTTCAGGGTATAGACATTTGAAAGCAACCAACTGCCAGCGGGA 188
DB 230 GTGACCTGAAGAAATCTTTACAGGAATAGGACACCTGAGAGAGTCAAACTGCAAGGGG 289
QY 189 GGCTGTGATTAATCTATTCCTTCTTAAATAAAGACATAGAGCCCAAAA 248
DB 290 TACTGTGAAGAGCTATTCATTAATCTTCTTAAATAAAGATGACGCGCAAAA 349
QY 249 AAAAAGGTGTCAGAGAAAGATGAGAGTGAACAAAGTCTTAGACTCTGCAAGTAT 308
DB 350 AAAAAGGTGTCAGAGAAAGATGAGAGTGAACCAATCTTAGACTCTGCAAGTAT 409
QY 309 TCTGTGTATTAATTAACACCGAGTGAACCGGAAAGT 345
DB 410 TCTGTGTATTAATTAACACCGAGTGAATAGAAAGT 446
XX
RESULT 14
AAF20979
ID AAF20979 standard; DNA; 816 BP.
XX
AC AAF20979;
XX
DT 14-MAR-2001 (first entry)
XX
DE Human low adenosine antisense oligonucleotide related sequence #2546.
XX
KW Low adenosine antisense oligonucleotide; phosphorothioate; allergy;
KW human; airway disorder; bronchoconstriction; lung inflammation;
KW surfactant depletion; respiratory; bronchodilator; antiinflammatory;
KW immunosuppressive; antiasthmatic; analgesic; hypotensive; cyostatic;
KW respiratory obstruction; pulmonary obstruction; impeded respiration;
KW surfactant hypoproduction; pulmonary vasoconstriction; asthma; RDS;
KW respiratory distress syndrome; pain; cystic fibrosis; allergic rhinitis;
KW pulmonary hypertension; emphysema; pulmonary transplantation rejection;
KW chronic obstructive pulmonary disease; pulmonary infection; bronchitis;
KW cancer; ss.
XX
KW Homo sapiens.
XX
OS WO200062736-A2.
XX
PN 26-OCT-2000.
XX
PD

PF 24-MAR-2000; 2000WO-US008020.
XX
XX 06-APR-1999; 99US-0127958P.
XX
XX (UYEC-) UNIV EAST CAROLINA.
XX (NYCE/) NYCE J W.
XX
PI Myce JW;
XX
XX WPI: 2000-679539/66.
XX
XX Low adenosine (A) content antisense oligonucleotides which do not trigger
XX adenosine receptors during metabolism, useful e.g. for treating cancers
XX and respiratory obstructions.
XX
PS Disclosure; Page 788; 1592pp; English.
XX
XX The present invention describes low adenosine (A) content antisense
XX oligonucleotides and compositions (I) comprising them. In the antisense
XX oligonucleotides the A is replaced by a 'Universal' or alternative base.
XX (I) can have respiratory, bronchodilator, antiinflammatory, analgesic,
XX immunosuppressive, antiasthmatic, hypotensive and cyostatic activities.
XX The antisense oligonucleotides and (I) can be used to down-regulate the
XX expression and or activity of target polypeptides associated with
XX lung/respiratory disorders and malignancies, such as stimulating and
XX activating peptide factors and transmitters, transcription factors,
XX immunoglobulins and antibodies, antibody receptors, cytokines and
XX chemokines, endogenously produced specific and non-specific enzymes,
XX binding proteins, adhesion molecules and their receptors, cytokine and
XX chemokine receptors, adenosine receptors, bradykinin receptors, central
XX nervous system (CNS) and peripheral nervous and non-nervous system
XX receptors, CNS and peripheral nervous and non-nervous system peptide
XX transmitters, defensive, growth factors, vasocactive peptides and
XX receptors, binding proteins and malignancy associated proteins. The
XX antisense oligonucleotides may be used in this way to treat disorders
XX including respiratory obstruction (especially pulmonary obstruction
XX and/or bronchoconstriction) and/or lung inflammation, allergy(ies) and/or
XX surfactant hypoproduction which are associated with a disease or
XX condition selected from pulmonary vasoconstriction, inflammation,
XX allergies, asthma, impeded respiration, respiratory distress syndrome
XX (RDS), pain, cystic fibrosis (CF), allergic rhinitis (AR), pulmonary
XX hypertension, emphysema, chronic obstructive pulmonary disease (COPD),
XX pulmonary transplantation rejection, pulmonary infections, bronchitis,
XX and/or cancer. AAF18434 to AAF21543 represent human polynucleotide
XX fragments and antisense oligonucleotides used in the exemplification of
XX the present invention
XX
SQ Sequence 816 BP; 277 A; 137 C; 164 G; 238 T; 0 U; 0 Other;
XX
Query Match 67.1%; Score 231.4; DB 3; Length 816;
Best Local Similarity 80.4%; Pred. No. 7.6e-59;
Matches 271; Conservative 0; Mismatches 66; Indels 0; Gaps 0;
XX
QY 9 AGAATATCCCATGATAGTCTGTGGCAGAGACCTTGACCTGCTCCACTCATTCGAC 68
DB 110 AGAATATCCCATGATAGTCTGTGGCAGAGACCTTGACCTGCTCCACTCATTCGAC 169
QY 69 TTGGCTGATAGCGGATGGAACCTGATGATCTCTACTCTGAAATATAATACCAACT 128
DB 170 TCTGCTATAGCCATAGTGAAGCTGAGAGATCTGCTTCTTACTATATAATACCAACT 229
QY 129 GTGATTAAGAGAGTTTTCAGGGTATAGACATTTGAAAGCAACCAACTGCCAGCGGGA 188
DB 230 GTGACCTGAAGAAATCTTTACAGGAATAGGACACCTGAGAGAGTCAAACTGCAAGGGG 289
QY 189 GGCTGTGATTAATCTATTCCTTCTTAAATAAAGACATAGAGCCCAAAA 248
DB 290 TACTGTGAAGAGCTATTCATTAATCTTCTTAAATAAAGATGACGCGCAAAA 349
QY 249 AAAAAGGTGTCAGAGAAAGATGAGAGTGAACAAAGTCTTAGACTCTGCAAGTAT 308
DB 350 AAAAAGGTGTCAGAGAAAGATGAGAGTGAACCAATCTTAGACTCTGCAAGTAT 409

Qy 309 TCTTGTGTAATAAACCCGAGTGACACCGGAAAGT 345
 Db 410 TCTTGTGTAATGAAACCGAGTGATATAGAAAGT 446

RESULT 15

ADG33104
 ID ADG33104 standard; DNA; 816 BP.

AC ADG33104;

XX 26-FEB-2004 (first entry)

DE Human DNA differentially expressed in patients with SLE SeqID428.

XX human; de; autoimmune; chronic inflammatory disease; SLE;

KM systemic lupus erythematosus; rheumatoid arthritis; cholecystitis;

KM Sjogren's disease; CRST syndrome; scleroderma; ankylosing spondylitis;

KM ulcerative colitis; primary sclerosing cholangitis; appendicitis;

XX diverticulitis; primary biliary sclerosis.

XX Homo sapiens.

XX W02003090694-A2.

XX 06-NOV-2003.

XX 24-APR-2003; 2003WO-US013015.

XX 24-APR-2002; 2002US-00131827.

XX (EXPR-) EXPRESSION DIAGNOSTICS INC.

XX Wohlgemuth J, Fry K, Woodward R, Ly N;

XX WPI; 2003-877243/81.

XX Claim 18; SEQ ID NO 428; 877bp; English.

CC This invention relates to novel methods for diagnosing and monitoring
 CC autoimmune and chronic inflammatory diseases. Specifically, it refers to
 CC the identification of genes that have a clinical utility as diagnostic
 CC tools for the management of, in particular, patients with systemic lupus
 CC erythematosus (SLE) or rheumatoid arthritis (RA). Accordingly, the
 CC present invention describes a method for determining the levels of
 CC multiple differentially expressed genes of a patient, in a concerted
 CC manner, in order to achieve an improved diagnostic assay with sensitivity
 CC and specificity for the disease in question. As such, these genes are
 CC useful for the diagnosis of various other inflammatory disorders
 CC including cholecystitis, Sjogren's disease, CRST syndrome, scleroderma,
 CC ankylosing spondylitis, ulcerative colitis, primary sclerosing
 CC cholangitis, appendicitis, diverticulitis, and primary biliary sclerosis.
 CC This polynucleotide is a DNA sequence representing human mRNA that is
 CC differentially expressed in patients with SLE, used in an exemplification
 CC of the invention.

CC Sequence 816 BP; 276 A; 137 C; 165 G; 238 T; 0 U; 0 Other;

CC Query Match 67.1%; Score 231.4; DB 10; Length 816;

CC Best Local Similarity 80.4%; Pred. No. 7.6e-59;

CC Matches 271; Conservative 0; Mismatches 66; Indels 0; Gaps 0;

Qy 9 AGAAATCCCATGATAGACTGTGCGAGAGACCTTGACACTGCTCTCCACTCATCGAAC 68

Db 110 AGAATTCCTCCAGATGATGGAAGACCTTGCACTGCTTCTACTCATCGAAC 169

Qy 69 TTGGCTGATAGCGAATGGGAACTGATGATCTTCACTCTGAAATAAATCACAAC 128

Db 170 TCTGCTGATAGCCCAATGAGACTCTGAGATTCTCTGTATCAATAAAAATCACAAC 229
 Qy 129 GTGCATTAAGAAAGTTTTCAGGGTATAGACATTTGAAGAAACCAACTGCCACGGGGA 188
 Db 230 GTGCATTAAGAAAGTTTTCAGGGTATAGACATTTGAAGAAACCAACTGCCACGGGGA 289
 Qy 189 GGCTGTGATTAATCTATTTCCAAACTTGTCTTTAATAAAGAACATAGAGCGCCAAA 248
 Db 290 TACTGTGAAAGACTATTCAAAACTTGTCTTTAATAAAGAAATCATTTGACCGCAAAA 349
 Qy 249 AAAAAGTGTGACGAGAAAGATGAGAGTGAACAAGTTCTAGACTACCTGCAAGATT 308
 Db 350 AAAAAGTGTGAGAAAGAAAGAGAGAGATTAACCAATTCCTAGACTACTGCAAGATT 409
 Qy 309 TCTTGTGTAATAAACCCGAGTGACACCGGAAAGT 345
 Db 410 TCTTGTGTAATGAAACCGAGTGATATAGAAAGT 446

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OM nucleic - nucleic search, using sw model

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Pred. No. is the number of results predicted by chance to have a
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and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	Query Match	Length	ID	Description
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2	345	100.0	345	9	US-09-755-633-11
3	345	100.0	345	14	US-10-218-654-85
4	345	100.0	345	14	US-10-218-654-87
5	345	100.0	345	15	US-10-262-439-85
6	345	100.0	345	15	US-10-262-439-87
7	345	100.0	345	19	US-10-787-382-9

C 8	345	100.0	345	19	US-10-787-382-11	Sequence 11, Appl
9	345	100.0	402	9	US-09-755-633-7	Sequence 7, Appl
C 10	345	100.0	402	9	US-09-755-633-8	Sequence 8, Appl
11	345	100.0	402	14	US-10-218-654-83	Sequence 83, Appl
C 12	345	100.0	402	14	US-10-218-654-84	Sequence 84, Appl
13	345	100.0	402	15	US-10-262-439-83	Sequence 83, Appl
C 14	345	100.0	402	15	US-10-262-439-84	Sequence 84, Appl
15	345	100.0	402	19	US-10-787-382-7	Sequence 7, Appl
C 16	345	100.0	402	19	US-10-787-382-8	Sequence 8, Appl
17	345	100.0	610	9	US-09-755-633-4	Sequence 4, Appl
C 18	345	100.0	610	9	US-09-755-633-6	Sequence 6, Appl
19	345	100.0	610	14	US-10-218-654-80	Sequence 80, Appl
C 20	345	100.0	610	14	US-10-218-654-82	Sequence 82, Appl
21	345	100.0	610	15	US-10-262-439-80	Sequence 80, Appl
C 22	345	100.0	610	15	US-10-262-439-82	Sequence 82, Appl
23	345	100.0	610	19	US-10-787-382-4	Sequence 4, Appl
C 24	345	100.0	610	19	US-10-787-382-6	Sequence 6, Appl
25	259	75.1	671	9	US-09-755-633-21	Sequence 21, Appl
26	259	75.1	671	19	US-10-787-382-21	Sequence 21, Appl
27	231.4	67.1	459	22	US-10-880-101A-85	Sequence 85, Appl
28	231.4	67.1	816	17	US-10-191-997-90	Sequence 90, Appl
29	231.4	67.1	816	21	US-10-929-182-4	Sequence 4, Appl
30	231.4	67.1	858	22	US-10-880-101A-87	Sequence 87, Appl
31	231.4	67.1	858	16	US-10-295-074-8	Sequence 8, Appl
32	231.4	67.1	858	16	US-10-295-074-10	Sequence 10, Appl
33	231.4	67.1	858	20	US-10-846-911-8	Sequence 8, Appl
34	231.4	67.1	858	20	US-10-846-911-10	Sequence 10, Appl
35	231.4	67.1	864	16	US-10-295-074-12	Sequence 12, Appl
36	231.4	67.1	864	16	US-10-295-074-14	Sequence 14, Appl
37	231.4	67.1	864	20	US-10-846-911-12	Sequence 12, Appl
38	231.4	67.1	864	20	US-10-846-911-14	Sequence 14, Appl
39	229.8	66.6	816	18	US-10-641-643-1236	Sequence 1236, Ap
40	131.6	38.1	1658	9	US-09-755-633-18	Sequence 18, Appl
C 41	131.6	38.1	1658	9	US-09-755-633-19	Sequence 19, Appl
42	131.6	38.1	1658	19	US-10-787-382-18	Sequence 18, Appl
C 43	131.6	38.1	1658	19	US-10-787-382-19	Sequence 19, Appl
44	90.6	26.3	6727	9	US-09-800-629A-1	Sequence 1, Appl
45	90.6	26.3	6727	19	US-10-679-532-1	Sequence 1, Appl

ALIGNMENTS

RESULT 1
US-09-755-633-9
; Sequence 9, Application US/09755633
; Patent No. US20020127200A1
; GENERAL INFORMATION:
; APPLICANT: Yang, Shunlin
; APPLICANT: McCall, Catherine A.
; APPLICANT: Weber, Eric R.
; TITLE OF INVENTION: CANINE AND FELINE IMMUNOREGULATORY PROTEINS, NUCLEIC
; FILE REFERENCE: IM-2-C1-C1
; CURRENT FILING DATE: 2001-01-05
; PRIOR FILING DATE: 1999-05-28
; PRIOR APPLICATION NUMBER: 60/087,306
; PRIOR FILING DATE: 1998-05-29
; NUMBER OF SEQ ID NOS: 21
; SOFTWARE: PatentIn Ver. 2.1
; SEQ ID NO 9
; LENGTH: 345
; TYPE: DNA
; ORGANISM: Canis familiaris
; FEATURE:
; NAME/KEY: CDS
; LOCATION: (1)..(345)
US-09-755-633-9
Query Match 100.0%; Score 345; DB 9; Length 345;
Best Local Similarity 100.0%; Pred. No. 1.5e-94;

Matches 345; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 TTGCTGTAGAAAATCCCATGATAGACTGTGCGAGAGACTTGTGACACTGCTCCACT 60
Db 1 TTGCTGTAGAAAATCCCATGATAGACTGTGCGAGAGACTTGTGACACTGCTCCACT 60

Qy 61 CATGGAACCTGGCTGATAGGCGATGGGAACCTGATGATCTTCTACTCTGAAAAATAAAT 120
Db 61 CATGGAACCTGGCTGATAGGCGATGGGAACCTGATGATCTTCTACTCTGAAAAATAAAT 120

Qy 121 CACCAACTGTGCTATTAAGAAGTTTTCAGGGTATAGACATTTGAAGAACCAAACTGCC 180
Db 121 CACCAACTGTGCTATTAAGAAGTTTTCAGGGTATAGACATTTGAAGAACCAAACTGCC 180

Qy 181 CACGGGAGGCTGTGATTAACCTATCCAAAACCTGCTTTAATTAAGAACAATAGAG 240
Db 181 CACGGGAGGCTGTGATTAACCTATCCAAAACCTGCTTTAATTAAGAACAATAGAG 240

Qy 241 CGCCAAAAAAGAGTGTGCGAGGAAAGATGAGAGTGAAGTTCCTAGACTACCTG 300
Db 241 CGCCAAAAAAGAGTGTGCGAGGAAAGATGAGAGTGAAGTTCCTAGACTACCTG 300

Qy 301 CAAGTATTTCTTGGTGTATTAACACCGAGTGCACCGGAAAGT 345
Db 301 CAAGTATTTCTTGGTGTATTAACACCGAGTGCACCGGAAAGT 345

RESULT 2
US-09-755-633-11/c
; Sequence 11, Application US/09755633
; Patent No. US20020127200A1
; GENERAL INFORMATION:
; APPLICANT: Yang, Shumin
; APPLICANT: McCall, Catherine A.
; APPLICANT: Weber, Eric R.
; TITLE OF INVENTION: CANINE AND FELINE IMMUNOREGULATORY PROTEINS, NUCLEIC
; TITLE OF INVENTION: ACID MOLECULES, AND USES THEREOF
; FILE REFERENCE: IM-2-CI-C1
; CURRENT APPLICATION NUMBER: US/09/755,633
; PRIOR FILING DATE: 2001-01-05
; PRIOR APPLICATION NUMBER: 09/322,409
; PRIOR FILING DATE: 1999-05-28
; PRIOR APPLICATION NUMBER: 60/087,306
; PRIOR FILING DATE: 1998-05-29
; SOFTWARE: PatentIn Ver. 2.1
; NUMBER OF SEQ ID NOS: 21
; SEQ ID NO 11
; LENGTH: 345
; TYPE: DNA
; ORGANISM: Canis familiaris
US-09-755-633-11

Query Match 100.0%; Score 345; DB 9; Length 345;
Best Local Similarity 100.0%; Pred. No. 1.5e-94;
Matches 345; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 TTGCTGTAGAAAATCCCATGATAGACTGTGCGAGAGACTTGTGACACTGCTCCACT 60
Db 345 TTGCTGTAGAAAATCCCATGATAGACTGTGCGAGAGACTTGTGACACTGCTCCACT 286

Qy 61 CATGGAACCTGGCTGATAGGCGATGGGAACCTGATGATCTTCTACTCTGAAAAATAAAT 120
Db 285 CATGGAACCTGGCTGATAGGCGATGGGAACCTGATGATCTTCTACTCTGAAAAATAAAT 226

Qy 121 CACCAACTGTGCTATTAAGAAGTTTTCAGGGTATAGACATTTGAAGAACCAAACTGCC 180
Db 225 CACCAACTGTGCTATTAAGAAGTTTTCAGGGTATAGACATTTGAAGAACCAAACTGCC 166

Qy 181 CACGGGAGGCTGTGATTAACCTATCCAAAACCTGCTTTAATTAAGAACAATAGAG 240
Db 165 CACGGGAGGCTGTGATTAACCTATCCAAAACCTGCTTTAATTAAGAACAATAGAG 106

Qy 241 CGCCAAAAAAGAGTGTGCGAGGAAAGATGAGAGTGAAGTTCCTAGACTACCTG 300

Db 105 CGCCAAAAAAGAGTGTGCGAGGAAAGATGAGAGTGAAGTTCCTAGACTACCTG 46

Qy 301 CAAGTATTTCTTGGTGTATTAACACCGAGTGCACCGGAAAGT 345
Db 45 CAAGTATTTCTTGGTGTATTAACACCGAGTGCACCGGAAAGT 1

RESULT 3
US-10-218-654-85
; Sequence 85, Application US/10218654
; Publication No. US20030099609A1
; GENERAL INFORMATION:
; APPLICANT: Sim, Gek-kee
; APPLICANT: Yang, Shumin
; APPLICANT: Dreitz, Matthew J.
; APPLICANT: Wondertling, Ramani S.
; TITLE OF INVENTION: CANINE AND FELINE IMMUNOREGULATORY PROTEINS, NUCLEIC
; TITLE OF INVENTION: ACID MOLECULES, AND USES THEREOF
; FILE REFERENCE: IM-2-C1
; CURRENT APPLICATION NUMBER: US/10/218,654
; PRIOR FILING DATE: 2002-08-13
; PRIOR APPLICATION NUMBER: US/09/322,409
; PRIOR FILING DATE: 1999-05-28
; PRIOR APPLICATION NUMBER: 60/087,306
; PRIOR FILING DATE: 1998-05-29
; NUMBER OF SEQ ID NOS: 154
; SOFTWARE: PatentIn Ver. 2.0
; SEQ ID NO 85
; LENGTH: 345
; TYPE: DNA
; ORGANISM: Canis familiaris
; FEATURE:
; NAME/KEY: CDS
; LOCATION: (1)..(345)
US-10-218-654-85

Query Match 100.0%; Score 345; DB 14; Length 345;
Best Local Similarity 100.0%; Pred. No. 1.5e-94;
Matches 345; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 TTGCTGTAGAAAATCCCATGATAGACTGTGCGAGAGACTTGTGACACTGCTCCACT 60
Db 1 TTGCTGTAGAAAATCCCATGATAGACTGTGCGAGAGACTTGTGACACTGCTCCACT 60

Qy 61 CATGGAACCTGGCTGATAGGCGATGGGAACCTGATGATCTTCTACTCTGAAAAATAAAT 120
Db 61 CATGGAACCTGGCTGATAGGCGATGGGAACCTGATGATCTTCTACTCTGAAAAATAAAT 120

Qy 121 CACCAACTGTGCTATTAAGAAGTTTTCAGGGTATAGACATTTGAAGAACCAAACTGCC 180
Db 121 CACCAACTGTGCTATTAAGAAGTTTTCAGGGTATAGACATTTGAAGAACCAAACTGCC 180

Qy 181 CACGGGAGGCTGTGATTAACCTATCCAAAACCTGCTTTAATTAAGAACAATAGAG 240
Db 181 CACGGGAGGCTGTGATTAACCTATCCAAAACCTGCTTTAATTAAGAACAATAGAG 240

Qy 241 CGCCAAAAAAGAGTGTGCGAGGAAAGATGAGAGTGAAGTTCCTAGACTACCTG 300
Db 241 CGCCAAAAAAGAGTGTGCGAGGAAAGATGAGAGTGAAGTTCCTAGACTACCTG 300

Qy 301 CAAGTATTTCTTGGTGTATTAACACCGAGTGCACCGGAAAGT 345
Db 301 CAAGTATTTCTTGGTGTATTAACACCGAGTGCACCGGAAAGT 345

RESULT 4
US-10-218-654-87/c
; Sequence 87, Application US/10218654
; Publication No. US20030099609A1
; GENERAL INFORMATION:
; APPLICANT: Sim, Gek-kee
; APPLICANT: Yang, Shumin

APPLICANT: Dreitz, Matthew J.
APPLICANT: Wonderling, Ramani S.
TITLE OF INVENTION: CANINE AND FELINE IMMUNOREGULATORY PROTEINS, NUCLEIC
TITLE OF INVENTION: ACID MOLECULES, AND USES THEREOF
FILE REFERENCE: IM-2-C1
CURRENT APPLICATION NUMBER: US/10/218,654
CURRENT FILING DATE: 2002-08-13
PRIOR APPLICATION NUMBER: US/09/322,409
PRIOR FILING DATE: 1999-05-28
PRIOR APPLICATION NUMBER: 60/087,306
PRIOR FILING DATE: 1998-05-29
NUMBER OF SEQ ID NOS: 154
SOFTWARE: PatentIn Ver. 2.0
SEQ ID NO: 87
LENGTH: 345
TYPE: DNA
ORGANISM: Canis familiaris
US-10-218-654-87

Query Match 100.0%; Score 345; DB 14; Length 345;
Best Local Similarity 100.0%; Pred. No. 1.5e-94;
Matches 345; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 TTGCTGTAGAAAATCCCATGATAGACTGTGGCAGAGACCTTGACACTGCTCTCCACT 60
DB 345 TTGCTGTAGAAAATCCCATGATAGACTGTGGCAGAGACCTTGACACTGCTCTCCACT 286
QY 61 CATGAACCTTGCTGATAGAGGATGGGAACCTGATGATCTCTACTCTCTGAAAATATAAT 120
DB 285 CATGAACCTTGCTGATAGAGGATGGGAACCTGATGATCTCTACTCTCTGAAAATATAAT 226
QY 121 CACCACTGTGCTATTAAGAAGTTTTCAGGGTATAGACATTTGAAGAACCAACTGCC 180
DB 225 CACCACTGTGCTATTAAGAAGTTTTCAGGGTATAGACATTTGAAGAACCAACTGCC 166
QY 181 CACGGGAGGCTGTGATTAACCTATTTCCAAACTTGTCTTTAATATAAAGAACATAGAG 240
DB 165 CACGGGAGGCTGTGATTAACCTATTTCCAAACTTGTCTTTAATATAAAGAACATAGAG 106
QY 241 CGCCAAAAAAGAGTGTGCGAGGAGAAAGATGAGAGTGCACAAAGTTCTTGACTACTG 300
DB 105 CGCCAAAAAAGAGTGTGCGAGGAGAAAGATGAGAGTGCACAAAGTTCTTGACTACTG 46
QY 301 CAAGTATTTCTTGCTGTATTAACACCGAGTGAACCGGAAAGT 345
DB 45 CAAGTATTTCTTGCTGTATTAACACCGAGTGAACCGGAAAGT 1

RESULT 5
US-10-262-439-85
Sequence 85, Application US/10262439
Publication No. US20030143196A1
GENERAL INFORMATION:
APPLICANT: Yang, Gek-Ke
APPLICANT: Yang, Shumin
APPLICANT: Dreitz, Matthew J.
TITLE OF INVENTION: CANINE AND FELINE IMMUNOREGULATORY PROTEINS, NUCLEIC
TITLE OF INVENTION: ACID MOLECULES, AND USES THEREOF
FILE REFERENCE: IM-2-C2
CURRENT APPLICATION NUMBER: US/10/262,439
CURRENT FILING DATE: 2002-09-30
PRIOR APPLICATION NUMBER: US/09/451,527
PRIOR FILING DATE: 1999-12-01
PRIOR APPLICATION NUMBER: 09/322,409
PRIOR FILING DATE: 1999-05-28
PRIOR APPLICATION NUMBER: 60/087,306
PRIOR FILING DATE: 1998-05-29
NUMBER OF SEQ ID NOS: 174
SOFTWARE: PatentIn Ver. 2.0
SEQ ID NO: 85
LENGTH: 345
TYPE: DNA

ORGANISM: Canis familiaris
FEATURE:
NAME/KEY: CDS
LOCATION: (1)..(345)
US-10-262-439-85

Query Match 100.0%; Score 345; DB 15; Length 345;
Best Local Similarity 100.0%; Pred. No. 1.5e-94;
Matches 345; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 TTGCTGTAGAAAATCCCATGATAGACTGTGGCAGAGACCTTGACACTGCTCTCCACT 60
DB 1 TTGCTGTAGAAAATCCCATGATAGACTGTGGCAGAGACCTTGACACTGCTCTCCACT 60
QY 61 CATGAACCTTGCTGATAGAGGATGGGAACCTGATGATCTCTACTCTCTGAAAATATAAT 120
DB 61 CATGAACCTTGCTGATAGAGGATGGGAACCTGATGATCTCTACTCTCTGAAAATATAAT 120
QY 121 CACCACTGTGCTATTAAGAAGTTTTCAGGGTATAGACATTTGAAGAACCAACTGCC 180
DB 121 CACCACTGTGCTATTAAGAAGTTTTCAGGGTATAGACATTTGAAGAACCAACTGCC 180
QY 181 CACGGGAGGCTGTGATTAACCTATTTCCAAACTTGTCTTTAATATAAAGAACATAGAG 240
DB 181 CACGGGAGGCTGTGATTAACCTATTTCCAAACTTGTCTTTAATATAAAGAACATAGAG 240
QY 241 CGCCAAAAAAGAGTGTGCGAGGAGAAAGATGAGAGTGCACAAAGTTCTTGACTACTG 300
DB 241 CGCCAAAAAAGAGTGTGCGAGGAGAAAGATGAGAGTGCACAAAGTTCTTGACTACTG 300
QY 301 CAAGTATTTCTTGCTGTATTAACACCGAGTGAACCGGAAAGT 345
DB 301 CAAGTATTTCTTGCTGTATTAACACCGAGTGAACCGGAAAGT 345

RESULT 6
US-10-262-439-87/c
Sequence 87, Application US/10262439
Publication No. US20030143196A1
GENERAL INFORMATION:
APPLICANT: Yang, Gek-Ke
APPLICANT: Yang, Shumin
APPLICANT: Dreitz, Matthew J.
TITLE OF INVENTION: CANINE AND FELINE IMMUNOREGULATORY PROTEINS, NUCLEIC
TITLE OF INVENTION: ACID MOLECULES, AND USES THEREOF
FILE REFERENCE: IM-2-C2
CURRENT APPLICATION NUMBER: US/10/262,439
CURRENT FILING DATE: 2002-09-30
PRIOR APPLICATION NUMBER: US/09/451,527
PRIOR FILING DATE: 1999-12-01
PRIOR APPLICATION NUMBER: 09/322,409
PRIOR FILING DATE: 1999-05-28
PRIOR APPLICATION NUMBER: 60/087,306
PRIOR FILING DATE: 1998-05-29
NUMBER OF SEQ ID NOS: 174
SOFTWARE: PatentIn Ver. 2.0
SEQ ID NO: 87
LENGTH: 345
TYPE: DNA
ORGANISM: Canis familiaris
US-10-262-439-87

Query Match 100.0%; Score 345; DB 15; Length 345;
Best Local Similarity 100.0%; Pred. No. 1.5e-94;
Matches 345; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 TTGCTGTAGAAAATCCCATGATAGACTGTGGCAGAGACCTTGACACTGCTCTCCACT 60
DB 345 TTGCTGTAGAAAATCCCATGATAGACTGTGGCAGAGACCTTGACACTGCTCTCCACT 286
QY 61 CATGAACCTTGCTGATAGAGGATGGGAACCTGATGATCTCTACTCTCTGAAAATATAAT 120

Db 285 CATGAACCTGCTGATAGGCGATGGAACTGATGATTCCTACTCTGAAAAATATAAT 226
Qy 121 CACCACTGTGCTATTAAGAAAGTTTTCAGGGTATAGACATTTGAAGAACCAACTGCC 180
Db 225 CACCACTGTGCTATTAAGAAAGTTTTCAGGGTATAGACATTTGAAGAACCAACTGCC 166
Qy 181 CACGGGAGGCTGTGATTAACCTATTCGAAACCTTGTCTTTAATTAAGAACACATGAG 240
Db 165 CACGGGAGGCTGTGATTAACCTATTCGAAACCTTGTCTTTAATTAAGAACACATGAG 106
Qy 241 CGCCAAAAAAGAGTGTGAGAGAAAGATGAGAGCAAGTTCTAGACTACCTG 300
Db 105 CGCCAAAAAAGAGTGTGAGAGAAAGATGAGAGCAAGTTCTAGACTACCTG 46
Qy 301 CAAGTATTTCTTGTGTATTAACACCGAGTGAACCCGGAAGT 345
Db 45 CAAGTATTTCTTGTGTATTAACACCGAGTGAACCCGGAAGT 1

RESULT 7
US-10-787-382-9
; Sequence 9, Application US/10787382
; Publication No. US20040191868A1
; GENERAL INFORMATION:
; APPLICANT: Yang, Shumin
; APPLICANT: McCall, Catherine A.
; APPLICANT: Weber, Eric R.
; TITLE OF INVENTION: CANINE AND FELINE IMMUNOREGULATORY PROTEINS, NUCLEIC
; FILE REFERENCE: IM-2-CI-CI
; CURRENT APPLICATION NUMBER: US/10/787,382
; PRIOR FILING DATE: 2004-02-24
; PRIOR APPLICATION NUMBER: US/09/755,633
; PRIOR FILING DATE: 2001-01-05
; PRIOR APPLICATION NUMBER: 09/322,409
; PRIOR FILING DATE: 1999-05-28
; PRIOR APPLICATION NUMBER: 60/087,306
; NUMBER OF SEQ ID NOS: 21
; SOFTWARE: PatentIn Ver. 2.1
; SEQ ID NO 9
; LENGTH: 345
; TYPE: DNA
; ORGANISM: Canis familiaris
; FEATURE:
; NAME/KEY: CDS
; LOCATION: (1)..(345)
US-10-787-382-9

Query Match 100.0%; Score 345; DB 19; Length 345;
Best Local Similarity 100.0%; Pred. No. 1.5e-94;
Matches 345; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
Qy 1 TTTCTGTAGAAAATCCCATGATAGACTGTGCGAGAGACTTGACACTGCTCTCCACT 60
Db 1 TTTCTGTAGAAAATCCCATGATAGACTGTGCGAGAGACTTGACACTGCTCTCCACT 60
Qy 61 CATGAACCTGCTGATAGGCGATGGAACTGATGATTCCTACTCTGAAATATAAT 120
Db 61 CATGAACCTGCTGATAGGCGATGGAACTGATGATTCCTACTCTGAAATATAAT 120
Qy 121 CACCACTGTGCTATTAAGAAAGTTTTCAGGGTATAGACATTTGAAGAACCAACTGCC 180
Db 121 CACCACTGTGCTATTAAGAAAGTTTTCAGGGTATAGACATTTGAAGAACCAACTGCC 180
Qy 181 CACGGGAGGCTGTGATTAACCTATTCGAAACCTTGTCTTTAATTAAGAACACATGAG 240
Db 181 CACGGGAGGCTGTGATTAACCTATTCGAAACCTTGTCTTTAATTAAGAACACATGAG 240
Qy 241 CGCCAAAAAAGAGTGTGAGAGAAAGATGAGAGCAAGTTCTAGACTACCTG 300
Db 241 CGCCAAAAAAGAGTGTGAGAGAAAGATGAGAGCAAGTTCTAGACTACCTG 300

Qy 301 CAAGTATTTCTTGTGTATTAACACCGAGTGAACCCGGAAGT 345
Db 301 CAAGTATTTCTTGTGTATTAACACCGAGTGAACCCGGAAGT 345

RESULT 8
US-10-787-382-11/c
; Sequence 11, Application US/10787382
; Publication No. US20040191868A1
; GENERAL INFORMATION:
; APPLICANT: Yang, Shumin
; APPLICANT: McCall, Catherine A.
; APPLICANT: Weber, Eric R.
; TITLE OF INVENTION: CANINE AND FELINE IMMUNOREGULATORY PROTEINS, NUCLEIC
; FILE REFERENCE: IM-2-CI-CI
; CURRENT APPLICATION NUMBER: US/10/787,382
; PRIOR FILING DATE: 2004-02-24
; PRIOR APPLICATION NUMBER: US/09/755,633
; PRIOR FILING DATE: 2001-01-05
; PRIOR APPLICATION NUMBER: 09/322,409
; PRIOR FILING DATE: 1999-05-28
; PRIOR APPLICATION NUMBER: 60/087,306
; NUMBER OF SEQ ID NOS: 21
; SOFTWARE: PatentIn Ver. 2.1
; SEQ ID NO 11
; LENGTH: 345
; TYPE: DNA
; ORGANISM: Canis familiaris
US-10-787-382-11

Query Match 100.0%; Score 345; DB 19; Length 345;
Best Local Similarity 100.0%; Pred. No. 1.5e-94;
Matches 345; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
Qy 1 TTTCTGTAGAAAATCCCATGATAGACTGTGCGAGAGACTTGACACTGCTCTCCACT 60
Db 345 TTTCTGTAGAAAATCCCATGATAGACTGTGCGAGAGACTTGACACTGCTCTCCACT 286
Qy 61 CATGAACCTGCTGATAGGCGATGGAACTGATGATTCCTACTCTGAAATATAAT 120
Db 285 CATGAACCTGCTGATAGGCGATGGAACTGATGATTCCTACTCTGAAATATAAT 226
Qy 121 CACCACTGTGCTATTAAGAAAGTTTTCAGGGTATAGACATTTGAAGAACCAACTGCC 180
Db 225 CACCACTGTGCTATTAAGAAAGTTTTCAGGGTATAGACATTTGAAGAACCAACTGCC 166
Qy 181 CACGGGAGGCTGTGATTAACCTATTCGAAACCTTGTCTTTAATTAAGAACACATGAG 240
Db 165 CACGGGAGGCTGTGATTAACCTATTCGAAACCTTGTCTTTAATTAAGAACACATGAG 106
Qy 241 CGCCAAAAAAGAGTGTGAGAGAAAGATGAGAGCAAGTTCTAGACTACCTG 300
Db 105 CGCCAAAAAAGAGTGTGAGAGAAAGATGAGAGCAAGTTCTAGACTACCTG 46
Qy 301 CAAGTATTTCTTGTGTATTAACACCGAGTGAACCCGGAAGT 345
Db 45 CAAGTATTTCTTGTGTATTAACACCGAGTGAACCCGGAAGT 1

RESULT 9
US-09-755-633-7
; Sequence 7, Application US/09755633
; Patent No. US20020127200A1
; GENERAL INFORMATION:
; APPLICANT: Yang, Shumin
; APPLICANT: McCall, Catherine A.
; APPLICANT: Weber, Eric R.
; TITLE OF INVENTION: CANINE AND FELINE IMMUNOREGULATORY PROTEINS, NUCLEIC
; FILE REFERENCE: IM-2-CI-CI
; CURRENT APPLICATION NUMBER: US/09/755,633

;; CURRENT FILING DATE: 2001-01-05
;; PRIOR APPLICATION NUMBER: 09/322,409
;; PRIOR FILING DATE: 1999-05-28
;; PRIOR APPLICATION NUMBER: 60/087,306
;; PRIOR FILING DATE: 1998-05-29
;; NUMBER OF SEQ ID NOS: 21
;; SOFTWARE: PatentIn Ver. 2.1
;; SEQ ID NO 7
;; LENGTH: 402
;; TYPE: DNA
;; ORGANISM: Canis familiaris
US-09-755-633-7

Query Match 100.0%; Score 345; DB 9; Length 402;
Best Local Similarity 100.0%; Pred. No. 1,7e-94;
Matches 345; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 TTGCTGTAGAAAATCCCATGAATGACTGTGGCAGAGACTTGAACCTGCTCCACT 60
DB 58 TTGCTGTAGAAAATCCCATGAATGACTGTGGCAGAGACTTGAACCTGCTCCACT 117
DB 61 CATGAACCTGGCTGATAGGCGATGGGAACCTGATGATCTTCTAATTAAGAAAT 120
DB 118 CATGAACCTGGCTGATAGGCGATGGGAACCTGATGATCTTCTAATTAAGAAAT 177
QY 121 CACCAACTGTGCTTAAGAAAGTTTTCAGGGTATAGACATTTGAAGAACCAACTGCC 180
DB 178 CACCAACTGTGCTTAAGAAAGTTTTCAGGGTATAGACATTTGAAGAACCAACTGCC 237
QY 181 CACGGGAGGCTGTGATTAACCTATTCCTTAATTAAGAAACATATGAG 240
DB 238 CACGGGAGGCTGTGATTAACCTATTCCTTAATTAAGAAACATATGAG 297
QY 241 CGCCAAAAAAGGTGTGAGGAGAAAGATGAGAGTGAACAAAGTTCTAGACTCTG 300
DB 298 CGCCAAAAAAGGTGTGAGGAGAAAGATGAGAGTGAACAAAGTTCTAGACTCTG 357
QY 301 CAAGTATTTCTGTGTATTAACACCGAGTGCACCGGAAAGT 345
DB 358 CAAGTATTTCTGTGTATTAACACCGAGTGCACCGGAAAGT 402

RESULT 10
US-09-755-633-8/C

;; Sequence 8, Application US/09755633
;; Patent No. US20020127200A1
;; GENERAL INFORMATION:
;; APPLICANT: Yang, Shumin
;; APPLICANT: McCall, Catherine A.
;; APPLICANT: Weber, Eric R.
;; TITLE OF INVENTION: CANINE AND FELINE IMMUNOREGULATORY PROTEINS, NUCLEIC
;; TITLE OF INVENTION: ACID MOLECULES, AND USES THEREOF
;; FILE REFERENCE: IM-2-C1-C1
;; CURRENT APPLICATION NUMBER: US/09/755,633
;; PRIOR FILING DATE: 2001-01-05
;; PRIOR APPLICATION NUMBER: 09/322,409
;; PRIOR FILING DATE: 1999-05-28
;; PRIOR APPLICATION NUMBER: 60/087,306
;; PRIOR FILING DATE: 1998-05-29
;; NUMBER OF SEQ ID NOS: 21
;; SOFTWARE: PatentIn Ver. 2.1
;; SEQ ID NO 8
;; LENGTH: 402
;; TYPE: DNA
;; ORGANISM: Canis familiaris
US-09-755-633-8

Query Match 100.0%; Score 345; DB 9; Length 402;
Best Local Similarity 100.0%; Pred. No. 1,7e-94;
Matches 345; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
QY 1 TTGCTGTAGAAAATCCCATGAATGACTGTGGCAGAGACTTGAACCTGCTCCACT 60
DB 58 TTGCTGTAGAAAATCCCATGAATGACTGTGGCAGAGACTTGAACCTGCTCCACT 117
DB 61 CATGAACCTGGCTGATAGGCGATGGGAACCTGATGATCTTCTAATTAAGAAAT 120
DB 118 CATGAACCTGGCTGATAGGCGATGGGAACCTGATGATCTTCTAATTAAGAAAT 177
QY 121 CACCAACTGTGCTTAAGAAAGTTTTCAGGGTATAGACATTTGAAGAACCAACTGCC 180
DB 178 CACCAACTGTGCTTAAGAAAGTTTTCAGGGTATAGACATTTGAAGAACCAACTGCC 237
QY 181 CACGGGAGGCTGTGATTAACCTATTCCTTAATTAAGAAACATATGAG 240
DB 238 CACGGGAGGCTGTGATTAACCTATTCCTTAATTAAGAAACATATGAG 297
QY 241 CGCCAAAAAAGGTGTGAGGAGAAAGATGAGAGTGAACAAAGTTCTAGACTCTG 300
DB 298 CGCCAAAAAAGGTGTGAGGAGAAAGATGAGAGTGAACAAAGTTCTAGACTCTG 357

DB 345 TTGCTGTAGAAAATCCCATGAATGACTGTGGCAGAGACTTGAACCTGCTCCACT 286
QY 61 CATGAACCTGGCTGATAGGCGATGGGAACCTGATGATCTTCTAATTAAGAAAT 120
DB 285 CATGAACCTGGCTGATAGGCGATGGGAACCTGATGATCTTCTAATTAAGAAAT 226
QY 121 CACCAACTGTGCTTAAGAAAGTTTTCAGGGTATAGACATTTGAAGAACCAACTGCC 180
DB 225 CACCAACTGTGCTTAAGAAAGTTTTCAGGGTATAGACATTTGAAGAACCAACTGCC 166
QY 181 CACGGGAGGCTGTGATTAACCTATTCCTTAATTAAGAAACATATGAG 240
DB 165 CACGGGAGGCTGTGATTAACCTATTCCTTAATTAAGAAACATATGAG 106
QY 241 CGCCAAAAAAGGTGTGAGGAGAAAGATGAGAGTGAACAAAGTTCTAGACTCTG 300
DB 105 CGCCAAAAAAGGTGTGAGGAGAAAGATGAGAGTGAACAAAGTTCTAGACTCTG 46
QY 301 CAAGTATTTCTGTGTATTAACACCGAGTGCACCGGAAAGT 345
DB 45 CAAGTATTTCTGTGTATTAACACCGAGTGCACCGGAAAGT 1

RESULT 11
US-10-218-654-83

;; Sequence 83, Application US/10218654
;; Publication No. US20030099609A1
;; GENERAL INFORMATION:
;; APPLICANT: Sim, Gek-kee
;; APPLICANT: Yang, Shumin
;; APPLICANT: Drelitz, Matthew J.
;; APPLICANT: Wondertling, Ramani S.
;; TITLE OF INVENTION: CANINE AND FELINE IMMUNOREGULATORY PROTEINS, NUCLEIC
;; TITLE OF INVENTION: ACID MOLECULES, AND USES THEREOF
;; FILE REFERENCE: IM-2-C1
;; CURRENT APPLICATION NUMBER: US/10/218,654
;; PRIOR FILING DATE: 2002-08-13
;; PRIOR APPLICATION NUMBER: US/09/322,409
;; PRIOR FILING DATE: 1999-05-28
;; PRIOR APPLICATION NUMBER: 60/087,306
;; PRIOR FILING DATE: 1998-05-29
;; NUMBER OF SEQ ID NOS: 154
;; SOFTWARE: PatentIn Ver. 2.0
;; SEQ ID NO 83
;; LENGTH: 402
;; TYPE: DNA
;; ORGANISM: Canis familiaris
US-10-218-654-83

Query Match 100.0%; Score 345; DB 14; Length 402;
Best Local Similarity 100.0%; Pred. No. 1,7e-94;
Matches 345; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 TTGCTGTAGAAAATCCCATGAATGACTGTGGCAGAGACTTGAACCTGCTCCACT 60
DB 58 TTGCTGTAGAAAATCCCATGAATGACTGTGGCAGAGACTTGAACCTGCTCCACT 117
QY 61 CATGAACCTGGCTGATAGGCGATGGGAACCTGATGATCTTCTAATTAAGAAAT 120
DB 118 CATGAACCTGGCTGATAGGCGATGGGAACCTGATGATCTTCTAATTAAGAAAT 177
QY 121 CACCAACTGTGCTTAAGAAAGTTTTCAGGGTATAGACATTTGAAGAACCAACTGCC 180
DB 178 CACCAACTGTGCTTAAGAAAGTTTTCAGGGTATAGACATTTGAAGAACCAACTGCC 237
QY 181 CACGGGAGGCTGTGATTAACCTATTCCTTAATTAAGAAACATATGAG 240
DB 238 CACGGGAGGCTGTGATTAACCTATTCCTTAATTAAGAAACATATGAG 297
QY 241 CGCCAAAAAAGGTGTGAGGAGAAAGATGAGAGTGAACAAAGTTCTAGACTCTG 300
DB 298 CGCCAAAAAAGGTGTGAGGAGAAAGATGAGAGTGAACAAAGTTCTAGACTCTG 357

QY 301 CAAGTATTTCTGCTGTAATAAACCCGAGTGACACCGGAAGT 345
DB 358 CAAGTATTTCTGCTGTAATAAACCCGAGTGACACCGGAAGT 402

RESULT 12

US-10-218-654-84/c
Sequence 84, Application US/10218654
Publication No. US2003009609A1
GENERAL INFORMATION:
APPLICANT: Sim, Gek-Kee
APPLICANT: Yang, Shumin
APPLICANT: Drelitz, Matthew J.
TITLE OF INVENTION: CANINE AND FELINE IMMUNOREGULATORY PROTEINS, NUCLEIC
FILE REFERENCE: IM-2-C1
CURRENT APPLICATION NUMBER: US/10/218,654
PRIOR FILING DATE: 1999-05-28
PRIOR APPLICATION NUMBER: 60/087,306
PRIOR FILING DATE: 1998-05-29
NUMBER OF SEQ ID NOS: 154
SOFTWARE: PatentIn Ver. 2.0
SEQ ID NO 84
LENGTH: 402
TYPE: DNA
ORGANISM: Canis familiaris
US-10-218-654-84

Query Match 100.0%; Score 345; DB 14; Length 402;
Best Local Similarity 100.0%; Pred. No. 1.7e-94;
Matches 345; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 TTTGCTGTAGAAATCCCATGTAATAGACTGTGGCAGAGACTTGACACTGCTCCACT 60
DB 345 TTTGCTGTAGAAATCCCATGTAATAGACTGTGGCAGAGACTTGACACTGCTCCACT 266
QY 61 CATCGAAGCTGGCTGATAGAGCGATGGGAACCTGATGTTCTTCTACTCTGTAATAAAT 120
DB 285 CATCGAAGCTGGCTGATAGAGCGATGGGAACCTGATGTTCTTCTACTCTGTAATAAAT 226
QY 121 CACCAACTGTGATTAAGAGATTTTTCAGGGTATAGACATTTGAAGAACCAACTGCC 180
DB 225 CACCAACTGTGATTAAGAGATTTTTCAGGGTATAGACATTTGAAGAACCAACTGCC 166
QY 181 CAGGGGAGGCTGTGATTAACCTATTCCTTAATTAAGAACCATAGAG 240
DB 165 CAGGGGAGGCTGTGATTAACCTATTCCTTAATTAAGAACCATAGAG 106
QY 241 CGCCAAAAGAGTGTGAGAGAAAGATGAGAGTGAACAAAGTTCTAGACTACTG 300
DB 105 CGCCAAAAGAGTGTGAGAGAAAGATGAGAGTGAACAAAGTTCTAGACTACTG 46
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DB 45 CAAGTATTTCTGCTGTAATAAACCCGAGTGACACCGGAAGT 1

RESULT 13

US-10-262-439-83
Sequence 83, Application US/10262439
Publication No. US20030143196A1
GENERAL INFORMATION:
APPLICANT: Sim, Gek-Kee
APPLICANT: Yang, Shumin
APPLICANT: Drelitz, Matthew J.
APPLICANT: Wondelring, Ramani S.
TITLE OF INVENTION: CANINE AND FELINE IMMUNOREGULATORY PROTEINS, NUCLEIC
FILE REFERENCE: IM-2-C2
CURRENT APPLICATION NUMBER: US/10/262,439

QY 1 TTTGCTGTAGAAATCCCATGTAATAGACTGTGGCAGAGACTTGACACTGCTCCACT 60
DB 58 TTTGCTGTAGAAATCCCATGTAATAGACTGTGGCAGAGACTTGACACTGCTCCACT 117
QY 61 CATCGAAGCTGGCTGATAGAGCGATGGGAACCTGATGTTCTTCTACTCTGTAATAAAT 120
DB 118 CATCGAAGCTGGCTGATAGAGCGATGGGAACCTGATGTTCTTCTACTCTGTAATAAAT 177
QY 121 CACCAACTGTGATTAAGAGATTTTTCAGGGTATAGACATTTGAAGAACCAACTGCC 180
DB 178 CACCAACTGTGATTAAGAGATTTTTCAGGGTATAGACATTTGAAGAACCAACTGCC 237
QY 181 CAGGGGAGGCTGTGATTAACCTATTCCTTAATTAAGAACCATAGAG 240
DB 238 CAGGGGAGGCTGTGATTAACCTATTCCTTAATTAAGAACCATAGAG 297

QY 241 CGCCAAAAGAGTGTGAGAGAAAGATGAGAGTGAACAAAGTTCTAGACTACTG 300
DB 298 CGCCAAAAGAGTGTGAGAGAAAGATGAGAGTGAACAAAGTTCTAGACTACTG 357
QY 301 CAAGTATTTCTGCTGTAATAAACCCGAGTGACACCGGAAGT 345
DB 358 CAAGTATTTCTGCTGTAATAAACCCGAGTGACACCGGAAGT 402

Query Match 100.0%; Score 345; DB 15; Length 402;
Best Local Similarity 100.0%; Pred. No. 1.7e-94;
Matches 345; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 TTTGCTGTAGAAATCCCATGTAATAGACTGTGGCAGAGACTTGACACTGCTCCACT 60
DB 58 TTTGCTGTAGAAATCCCATGTAATAGACTGTGGCAGAGACTTGACACTGCTCCACT 117
QY 61 CATCGAAGCTGGCTGATAGAGCGATGGGAACCTGATGTTCTTCTACTCTGTAATAAAT 120
DB 118 CATCGAAGCTGGCTGATAGAGCGATGGGAACCTGATGTTCTTCTACTCTGTAATAAAT 177
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DB 178 CACCAACTGTGATTAAGAGATTTTTCAGGGTATAGACATTTGAAGAACCAACTGCC 237
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DB 238 CAGGGGAGGCTGTGATTAACCTATTCCTTAATTAAGAACCATAGAG 297
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DB 298 CGCCAAAAGAGTGTGAGAGAAAGATGAGAGTGAACAAAGTTCTAGACTACTG 357
QY 301 CAAGTATTTCTGCTGTAATAAACCCGAGTGACACCGGAAGT 345
DB 358 CAAGTATTTCTGCTGTAATAAACCCGAGTGACACCGGAAGT 402

RESULT 14

US-10-262-439-84/c
Sequence 84, Application US/10262439
Publication No. US20030143196A1
GENERAL INFORMATION:
APPLICANT: Sim, Gek-Kee
APPLICANT: Yang, Shumin
APPLICANT: Drelitz, Matthew J.
APPLICANT: Wondelring, Ramani S.
TITLE OF INVENTION: CANINE AND FELINE IMMUNOREGULATORY PROTEINS, NUCLEIC
FILE REFERENCE: IM-2-C2
CURRENT APPLICATION NUMBER: US/10/262,439
PRIOR FILING DATE: 2002-09-30
PRIOR APPLICATION NUMBER: US/09/451,527
PRIOR FILING DATE: 1999-12-01
PRIOR APPLICATION NUMBER: 09/322,409
PRIOR FILING DATE: 1999-05-28
PRIOR APPLICATION NUMBER: 60/087,306
PRIOR FILING DATE: 1998-05-29
NUMBER OF SEQ ID NOS: 174
SOFTWARE: PatentIn Ver. 2.0
SEQ ID NO 84
LENGTH: 402
TYPE: DNA
ORGANISM: Canis familiaris
US-10-262-439-84

Query Match 100.0%; Score 345; DB 15; Length 402;

Best Local Similarity 100.0%; Pred. No. 1.7e-94;
Matches 345; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

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QY 1 TTGCTGTAGAAAATCCCATGATAGACTGTGTCAGAGACCTTGACACTGCTCTCCACT 60
Db 345 TTGCTGTAGAAAATCCCATGATAGACTGTGTCAGAGACCTTGACACTGCTCTCCACT 286
QY 61 CATGAACTTGCTGTAGAGCGATGAGAACCTGATGATCTTACTCTGAAAAATAAAT 120
Db 285 CATGAACTTGCTGTAGAGCGATGAGAACCTGATGATCTTACTCTGAAAAATAAAT 226
QY 121 CACCACTGTGCATTAAAGAGTTTTCAGGGTATAGACACATTGAAGAACCAACTGCC 180
Db 225 CACCACTGTGCATTAAAGAGTTTTCAGGGTATAGACACATTGAAGAACCAACTGCC 166
QY 181 CACGGGAGGCTGTGATTAACCTATTCAAAACCTGCTTTAATAAAGAACATAGAG 240
Db 165 CACGGGAGGCTGTGATTAACCTATTCAAAACCTGCTTTAATAAAGAACATAGAG 106
QY 241 CGCCAAAAAAGGTGTGCGAGAGAAAGATGAGAGTGAACAAGTCTTAGACTACTG 300
Db 105 CGCCAAAAAAGGTGTGCGAGAGAAAGATGAGAGTGAACAAGTCTTAGACTACTG 46
QY 301 CAAGTATTTCTGTGTATTAATTAACACCGAGTGAACCCGAAAGT 345
Db 45 CAAGTATTTCTGTGTATTAATTAACACCGAGTGAACCCGAAAGT 1
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RESULT 15
US-10-787-382-7

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; Sequence 7, Application US/10787382
; Publication No. US20040191868A1
; GENERAL INFORMATION:
; APPLICANT: Yang, Shumin
; APPLICANT: McCall, Catherine A.
; APPLICANT: Weber, Eric R.
; TITLE OF INVENTION: CANINE AND FELINE IMMUNOREGULATORY PROTEINS, NUCLEIC
; FILE REFERENCE: IM-2-C1-C1
; CURRENT APPLICATION NUMBER: US/10/787,382
; CURRENT FILING DATE: 2004-02-24
; PRIOR APPLICATION NUMBER: US/09/755,633
; PRIOR FILING DATE: 2001-01-05
; PRIOR APPLICATION NUMBER: 09/322,409
; PRIOR FILING DATE: 1999-05-28
; PRIOR APPLICATION NUMBER: 60/087,306
; PRIOR FILING DATE: 1998-05-29
; NUMBER OF SEQ ID NOS: 21
; SOFTWARE: PatentIn Ver. 2.1
; SEQ ID NO 7
; LENGTH: 402
; TYPE: DNA
; ORGANISM: Canis familiaris
; US-10-787-382-7
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Query Match 100.0%; Score 345; DB 19; Length 402;
Best Local Similarity 100.0%; Pred. No. 1.7e-94;
Matches 345; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

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Db 58 TTGCTGTAGAAAATCCCATGATAGACTGTGTCAGAGACCTTGACACTGCTCTCCACT 117
QY 61 CATGAACTTGCTGTAGAGCGATGAGAACCTGATGATCTTACTCTGAAAAATAAAT 120
Db 118 CATGAACTTGCTGTAGAGCGATGAGAACCTGATGATCTTACTCTGAAAAATAAAT 177
QY 121 CACCACTGTGCATTAAAGAGTTTTCAGGGTATAGACATGAAGAACCAACTGCC 180
Db 178 CACCACTGTGCATTAAAGAGTTTTCAGGGTATAGACATGAAGAACCAACTGCC 237
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Db 238 CACGGGAGGCTGTGATTAACCTATTCAAAACCTGCTTTAATAAAGAACATAGAG 297
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QY 301 CAAGTATTTCTGTGTATTAATTAACACCGAGTGAACCCGAAAGT 345
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GenCore version 5.1.6
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OW nucleic - nucleic search, using BW model

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Title: US-10-787-382-9
Perfect score: 345
Sequence: 1 ttctgctgtagaatacccat.....ccgagctgacacgcgaagc 345

Scoring table: IDENTITY_NUC
Gapop 10.0 , Gapext 1.0

Searched: 34239544 seqs, 19032134700 residues
Total number of hits satisfying chosen parameters: 68479088

Minimum DB seq length: 0
Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries

Database :

EST:*
1: gb_est1:*
2: gb_est2:*
3: gb_hic:*
4: gb_est3:*
5: gb_est4:*
6: gb_est5:*
7: gb_est6:*
8: gb_est1:*
9: gb_gest2:*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	Query Match	Length	DB ID	Description
1	231.4	67.1	405	9	AY412020 Homo sapi
2	231.4	67.1	456	6	CD559532 AGENCOURT
3	231.4	67.1	456	6	CD559686 AGENCOURT
4	231.4	67.1	470	6	CD559687 AGENCOURT
5	231.4	67.1	492	6	CD559533 AGENCOURT
6	227.4	65.9	405	9	AY412021 Pan trogl
7	222.4	64.5	477	6	CD559608 AGENCOURT
8	221	64.1	456	3	BC066281 Homo sapi
9	221	64.1	467	6	CD559688 AGENCOURT
10	221	64.1	478	6	CD559534 AGENCOURT
11	220.4	63.9	458	3	BC066279 Homo sapi
12	220.4	63.9	458	3	BC066280 Homo sapi
13	220.4	63.9	463	6	CD559535 AGENCOURT
14	220.4	63.9	473	6	CD559689 AGENCOURT
15	220.4	63.9	489	6	CD559536 AGENCOURT
16	220.4	63.9	487	6	BC069137 Homo sapi
17	218.8	63.4	467	6	CD559690 AGENCOURT
18	182.6	52.9	399	9	AY412022 Mus muscu
19	131.8	38.2	622	9	CE311159 tigr-gss-
20	78	22.6	503	5	BO598873 MI-P-EA-a
21	74.2	21.5	781	8	CR235404 Reverse b
22	55.2	16.0	495	7	CR554944 DKFZp469N
23	48.2	14.0	737	9	CR026247 Reverse s
24	40.6	11.8	522	4	BI670794 PFESToaao

25	40	11.6	317	6	CD087271	CD087271 MCI-0036T
26	39.8	11.5	535	8	AZ370501	AZ370501 IM0121K03
27	39.6	11.5	863	9	AG405650	AG405650 Mus muscu
28	39.2	11.4	603	4	Bj328562	Bj328562 B328562
29	39.2	11.4	619	4	Bj328648	Bj328648 B328648
30	39.2	11.4	905	9	CNS00059	AL060243 Drosophi1
31	38.6	11.2	1359	4	BG543026	BG543026 602570858
32	38.2	11.1	667	9	CE510121	CE510121 tigr-gss-
33	38.2	11.1	797	9	CC567321	CC567321 CH240.441
34	38	11.0	432	1	AA560540	AA560540 v119f05.r
35	38	11.0	494	6	CB094467	CB094467 h270d02.b
36	38	11.0	1011	9	CNS00JRI	AL076645 Drosophi1
37	37.8	11.0	584	5	BQ526053	BQ526053 NISC_no14
38	37.8	11.0	671	5	BX707130	BX707130 BX707130
39	37.8	11.0	684	5	BX758408	BX758408 BX758408
40	37.8	11.0	715	5	BX773473	BX773473 BX773473
41	37.8	11.0	724	5	BX773491	BX773491 BX773491
42	37.8	11.0	783	7	CF343019	CF343019 AGENCOURT
43	37.8	11.0	892	5	BX776535	BX776535 BX776535
44	37.6	10.9	604	7	CN441935	CN441935 BE04027B1
45	37.6	10.9	699	8	AQ781738	AQ781738 HS_3122_A

ALIGNMENTS

RESULT 1	AY412020	LOCUS	AY412020	405 bp	DNA	linear	GSS 16-DEC-2003
DEFINITION	Homo sapiens IL5 gene, VIRTUAL TRANSCRIPT, partial sequence.	ACCESSION	AY412020		VERSION	AY412020.1	GI:39767985
KEYWORDS	GSS.	SOURCE	Homo sapiens (human)		ORGANISM	Homo sapiens	
REFERENCE	1 (bases 1 to 405)	AUTHORS	Clark,A.G., Glanowski,S., Nielson,R., Thomas,P., Kejarival,A., Todd,M.A., Tanenbaum,D.M., Civello,D.R., Lu,F., Murphy,B., Ferriera,S., Wang,G., Zheng,X.H., White,T.J., Sninsky,J.J., Adams,M.D. and Cargill,M.		TITLE	Inferring nonneutral evolution from human-chimp-mouse orthologous gene trios	
JOURNAL	Science 302 (5652), 1960-1963 (2003)	PUBMED	14671302		REFERENCE	2 (bases 1 to 405)	
AUTHORS	Clark,A.G., Glanowski,S., Nielson,R., Thomas,P., Kejarival,A., Todd,M.A., Tanenbaum,D.M., Civello,D.R., Lu,F., Murphy,B., Ferriera,S., Wang,G., Zheng,X.H., White,T.J., Sninsky,J.J., Adams,M.D. and Cargill,M.				TITLE	Direct Submission	
JOURNAL	Submitted (16-NOV-2003) Celera Genomics, 45 West Gude Drive, Rockville, MD 20850, USA				COMMENT	This sequence was made by sequencing genomic exons and ordering them based on alignment	
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gene	/db_xref="taxon:9606"				<1..>405		
	/gene="IL5"				/locus_tag="HCM4418"		
ORIGIN	Query Match				67.1%; Score 231.4; DB 9; Length 405;		
	Best Local Similarity				80.4%; Pred.No.1e-53;		
	Matches				271; Mismatches 66; Indels 0; Gaps 0;		
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Db 66 AGAAATTCACCAAGTCATTGGTGAAGAAGACCTTGCACTGCTTTCTACTCATCGAAC 125
 Qy 69 TTGGCTGATAGGCGAATGGAACTGATGATTCCTACTCTGAAAAATATAATCACT 128
 Db 126 TCTCTGTATGACCAATGAGACTCTGAGATTCCTGTTCTTACTATAAATCACT 185
 Qy 129 GTGATTTAAAGAGTTTTCAGGATATGACATTTGAAGAACCAACTGCCCGGGA 188
 Db 186 GTGACCTGAAGAAATCTTTCAGGAAATGACACTGAGAGTCAAACTGTGCAAGGGG 245
 Qy 189 GGCTGTGATTAAGTATTCACAAACTTGTCTTTATATAAAGACATAGAGCGCAAAA 248
 Db 246 TACTGTGGAAGACTATTCATTAATCTTCTTAAATAAGAAATACATTCACGCCAATA 305
 Qy 249 AAAAAGGTGACGAGAAAGATGAGATGACAAAGTCTCTAGACTACCTGCAAGTAT 308
 Db 306 AAAAAGGTGAGAAAGAAAGACGAGAGTAAACCAATTCCTAGACTACCTGCAAGGTT 365
 Qy 309 TCTTGTGTATTAACACCGAGTGAACCGGAAAGT 345
 Db 366 TCTTGTGTATTAACACCGAGTGAATATGAAGT 402

RESULT 2
 CD559532 456 bp mRNA linear EST 11-JUN-2003
 LOCUS
 DEFINITION AGNCOURT 14497057 NIH_MGC_195 Homo sapiens CDNA clone
 IMAGE:6971772 5', mRNA sequence.
 CD559532
 CD559532.1 GI:31585600

ACCESSION
 VERSION
 KEYWORDS
 SOURCE
 ORGANISM

Homo sapiens (human)
 Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
 Mammalia; Eutheria; Primates; Catarrhini; Homidae; Homo.
 1 (bases 1 to 456)
 NIH-MGC http://mgs.nci.nih.gov/
 National Institutes of Health, Mammalian Gene Collection (MGC)
 Unpublished (1999)
 Contact: Daniela S. Gerhard, Ph.D.
 Office of Cancer Genomics / NIH
 National Cancer Institute / NIH
 Bldg. 31 Rm10A07 Bethesda, MD 20892
 Email: cgarbs-remail.nih.gov
 Tissue Procurement: Narayan Bhat
 CDNA Library Preparation: Bhat Laboratory
 CDNA Library Arrayed by: The I.M.A.G.E. Consortium (LNL)
 DNA Sequencing by: Agencourt Bioscience Corporation
 Clone distribution: MGC clone distribution information can be
 found through the I.M.A.G.E. Consortium/LNL at:
 http://image.llnl.gov
 Plate: IRBK1 row: 9 column: 11
 High quality sequence stop: 456.

FEATURES

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 /note="Vector: pDNR-Dual; Site 1: loxp-Sali; Site 2:
 loxp-HindIII; Clones from this library have been
 PCR-amplified using gene-specific primers to contain the
 complete open reading frame (based on known gene sequences
 available from NCBI's RefSeq). Template for PCR is cDNA
 derived from either pooled cytoplasmic polyA RNA from 30
 cells lines or pooled total RNA from 10 different tissues
 (from BD Biosciences/Clontech and Washington University).
 PCR products are directionally cloned into the loxp sites
 of the pDNR-Dual vector. Library constructed by Dr.
 Narayan Bhat, Earl Bere III and Hongling Liao (Gene

Expression Laboratory, Research Technology Program, SAIC
 Frederick, NCI-Fredrick, Frederick, MD 21702). For
 information on which gene each clone represents, please
 visit our anonymous ftp site at
 ftp://image.llnl.gov/image/rearrayed_plates/IRBK_presv.dat
 a Note: this is a NIH_MGC Library."

Query Match 67.1%; Score 231.4; DB 6; Length 456;
 Best Local Similarity 80.4%; Pred. No. 1e-53;
 Matches 271; Conservative 0; Mismatches 66; Indels 0; Gaps 0;

ORIGIN
 Qy 9 AGAAATTCACCAAGTATGACTGTGCGAGACCTTGACACTGCTCCACTATCGAAC 68
 Db 87 AGAAATTCACCAAGTATGACTGTGCGAGACCTTGACACTGCTCCACTATCGAAC 146
 Qy 69 TTGGCTGATAGGCGAATGGAACTGATGATTCCTACTCTGAAAAATATAATCACT 128
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 Qy 129 GTGATTTAAAGAGTTTTCAGGATATGACATTTGAAGAACCAACTGCCCGGGA 188
 Db 207 GTGACCTGAAGAAATCTTTCAGGAAATGACACTGAGAGTCAAACTGTGCAAGGGG 266
 Qy 189 GGCTGTGATTAAGTATTCACAAACTTGTCTTTATATAAAGACATAGAGCGCAAAA 248
 Db 267 TACTGTGGAAGACTATTCATTAATCTTCTTAAATAAGAAATACATTCACGCCAATA 326
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 Db 327 AAAAAGGTGAGAAAGAAAGACGAGAGTAAACCAATTCCTAGACTACCTGCAAGGTT 386
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 Db 387 TCTTGTGTATTAACACCGAGTGAATATGAAGT 423

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 LOCUS
 DEFINITION AGNCOURT 14497093 NIH_MGC_195 Homo sapiens CDNA clone
 IMAGE:6971772 3', mRNA sequence.
 CD559686
 CD559686.1 GI:31585754
 EST.
 SOURCE
 ORGANISM
 Homo sapiens (human)
 Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
 Mammalia; Eutheria; Primates; Catarrhini; Homidae; Homo.
 1 (bases 1 to 456)
 NIH-MGC http://mgs.nci.nih.gov/
 National Institutes of Health, Mammalian Gene Collection (MGC)
 Unpublished (1999)
 Contact: Daniela S. Gerhard, Ph.D.
 Office of Cancer Genomics / NIH
 National Cancer Institute / NIH
 Bldg. 31 Rm10A07 Bethesda, MD 20892
 Email: cgarbs-remail.nih.gov
 Tissue Procurement: Narayan Bhat
 CDNA Library Preparation: Bhat Laboratory
 CDNA Library Arrayed by: The I.M.A.G.E. Consortium (LNL)
 DNA Sequencing by: Agencourt Bioscience Corporation
 Clone distribution: MGC clone distribution information can be
 found through the I.M.A.G.E. Consortium/LNL at:
 http://image.llnl.gov
 Plate: IRBK1 row: 9 column: 11
 High quality sequence stop: 456.

FEATURES

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/notes="Vector: pDNR-Dual; Site 1: loxp-Sall; Site 2:
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PCR-amplified using gene-specific primers to contain the
complete open reading frame (based on known gene sequences
available from NCBI's RefSeq). Template for PCR is cDNA
derived from either pooled cytoplasmic polyA RNA from 30
cells lines or pooled total RNA from 10 different tissues
(from BD Biosciences/Clontech and Washington University).
PCR products are directionally cloned into the loxp sites
of the pDNR-Dual vector. Library constructed by Dr.
Narayan Bhat, Earl Bere III and Hongling Liao (Gene
Expression Laboratory, Research Technology Program, SAIC
Frederick, NCI-Frederick, Frederick, MD 21702). For
information on which gene each clone represents, please
visit our anonymous ftp site at
ftp://image.llnl.gov/image/rearayed_plates/IRBK.presv.dat
a Note: this is a NIH_MGC Library."

ORIGIN

Query Match 67.1%; Score 231.4; DB 6; Length 456;
Best Local Similarity 80.4%; Pred. No. 1e-53;
Matches 271; Conservative 0; Mismatches 66; Indels 0; Gaps 0;
QY 9 AGAAATCCCATGAATAGACTGTGTCAGAGACCTTGACATGCTCCACTCATCGAAC 68
DB 368 AGAAATCCCATGAATAGACTGTGTCAGAGACCTTGACATGCTCCACTCATCGAAC 309
QY 69 TTGGCTGATAGCGATGGAGAACTGATGATCTCTAATCTGAAATATAATCACTCAACT 128
DB 308 TCTGCTGATAGCGATGGAGAACTGATGATCTCTAATCTGAAATATAATCACTCAACT 249
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DB 128 AAAAAGGTGTCAGAGAAAGATGAGAGTGAACAAGTTCTAGACTCTGCAAGTATT 69
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DB 68 TCTTGTGTATTAACAACCGAGTGGATATATGAAGT 32
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DEFINITION IMAGE:6971771 5', mRNA sequence.
ACCESSION CD559687.2 GI:38453484
VERSION EST.
KEYWORDS Homo sapiens (human)
SOURCE Homo sapiens
ORGANISM Homo sapiens
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Primates; Catarrhini; Homiidae; Homo.
REFERENCE 1 (bases 1 to 470)
AUTHORS NIH-MGC <http://mgi.nci.nih.gov/>.
TITLE National Institutes of Health, Mammalian Gene Collection (MGC)
JOURNAL Unpublished (1999)
COMMENT On Jun 10, 2003 this sequence version replaced gi:31585755.
Contact: Daniela S. Gerhard, Ph.D.
Office of Cancer Genomics
National Cancer Institute / NIH
Bldg. 31 Rm10A07 Bethesda, MD 20892
Email: cgapbs-r@mail.nih.gov

Tissue Procurement: Narayan Bhat
cDNA Library Preparation: Bhat Laboratory
CDNA Library Arrayed by: The I.M.A.G.E. Consortium (LIML)
DNA Sequencing by: Agencourt Bioscience Corporation
Clone distribution: MGC clone distribution information can be
found through the I.M.A.G.E. Consortium/LIML at:
<http://image.llnl.gov>
Plate: IRBK1 row: 9 column: 10
High quality sequence start: 14
High quality sequence stop: 470.
Location/Qualifiers

FEATURES

source

1. 470
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/lab_host="DHSA (T1 phage-resistant)"
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/notes="Vector: pDNR-Dual; Site 1: loxp-Sall; Site 2:
loxP-HindIII; Clones from this library have been
PCR-amplified using gene-specific primers to contain the
complete open reading frame (based on known gene sequences
available from NCBI's RefSeq). Template for PCR is cDNA
derived from either pooled cytoplasmic polyA RNA from 30
cells lines or pooled total RNA from 10 different tissues
(from BD Biosciences/Clontech and Washington University).
PCR products are directionally cloned into the loxp sites
of the pDNR-Dual vector. Library constructed by Dr.
Narayan Bhat, Earl Bere III and Hongling Liao (Gene
Expression Laboratory, Research Technology Program, SAIC
Frederick, NCI-Frederick, Frederick, MD 21702). For
information on which gene each clone represents, please
visit our anonymous ftp site at
ftp://image.llnl.gov/image/rearayed_plates/IRBK.presv.dat
a Note: this is a NIH_MGC Library."

ORIGIN

Query Match 67.1%; Score 231.4; DB 6; Length 470;
Best Local Similarity 80.4%; Pred. No. 1e-53;
Matches 271; Conservative 0; Mismatches 66; Indels 0; Gaps 0;
QY 9 AGAAATCCCATGAATAGACTGTGTCAGAGACCTTGACATGCTCTCCTCATCGAAC 68
DB 361 AGAAATCCCATGAATAGACTGTGTCAGAGACCTTGACATGCTCTCCTCATCGAAC 322
QY 69 TTGGCTGATAGCGATGGAGAACTGATGATCTCTAATCTGAAATATAATCACTCAACT 128
DB 321 TCTGCTGATAGCGATGGAGAACTGATGATCTCTAATCTGAAATATAATCACTCAACT 262
QY 129 GTGCATTAAAGAGCTTTTTCAGGGTATAGACATTTGAAGAACCAACTGCCCGGGA 188
DB 261 GTGCATTAAAGAGCTTTTTCAGGGTATAGACATTTGAAGAACCAACTGCCCGGGA 202
QY 189 GGCCTGTGATTAATCTATTCCTTTCTTTTAAATAAACAATAGAGCCCAAAA 248
DB 201 TACTGTGGAAGAGCTATTCCTTTCTTTTAAATAAACAATAGAGCCCAAAA 142
QY 249 AAAAAGGTGTCAGAGAAAGATGAGAGTGAACAAGTTCTAGACTCTGCAAGTATT 308
DB 141 AAAAAGGTGTCAGAGAAAGATGAGAGTGAACAAGTTCTAGACTCTGCAAGTATT 82
QY 309 TCTTGTGTATTAACAACCGAGTGGACACCGGAAAGT 345
DB 81 TCTTGTGTATTAACAACCGAGTGGATATATGAAGT 45
RESULT 5
CD559533 492 bp mRNA linear EST 26-NOV-2003
LOCUS AGENCOURT 14496993 NIH_MGC_195 Homo sapiens cDNA clone
DEFINITION IMAGE:6971771 5', mRNA sequence.
ACCESSION CD559533

VERSION CD559533.2 GI:38558947
KEYWORDS EST.
SOURCE Homo sapiens (human)
ORGANISM Homo sapiens
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Primates; Catarrhini; Homnidae; Homo.
REFERENCE NIH-MGC http://mgc.nci.nih.gov/
AUTHORS 1 (bases 1 to 492)
TITLE National Institutes of Health, Mammalian Gene Collection (MGC)
JOURNAL Unpublished (1999)
COMMENT On Jun 10, 2003 this sequence version replaced gi:31585601.
Contact: Daniela S. Gerhard, Ph.D.
Office of Cancer Genomics
National Cancer Institute / NIH
Bldg. 31 Rm10A07 Bethesda, MD 20892
Email: cgsdps-rc@mail.nih.gov
Tissue Procurement: Narayan Bhat
CDNA Library Preparation: Bhat Laboratory
CDNA Library Arrayed by: The I.M.A.G.E. Consortium (LNL)
DNA Sequencing by: Agencourt Bioscience Corporation
Clone distribution: MGC clone distribution information can be
found through the I.M.A.G.E. Consortium/LNL at:
http://image.lnl.gov
Plate: IRBK1 row: 9 column: 10
High quality sequence start: 14
High quality sequence stop: 492.
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/db_xref="taxon:9606"
/clone="IMAGE:6971771"
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/lab_host="DH5A (TI phage-resistant)"
/clone_1lb="NIH MGC 195"
/notes="Vector: pDNR-Dual; Site 1: loxp-salt; Site 2:
loxP-HindIII; Clones from this library have been
PCR-amplified using gene-specific primers to contain the
complete open reading frame (based on known gene sequences
available from NCBI's RefSeq). Template for PCR is cDNA
derived from either pooled cytoplasmic polyA RNA from 30
cells lines or pooled total RNA from 10 different tissues
(from BD Biosciences/Clontech and Washington University).
PCR products are directionally cloned into the loxp sites
of the pDNR-Dual vector. Library constructed by Dr.
Narayan Bhat, Earl Bere III and Hongling Liao (Gene
Expression Laboratory, Research Technology Program, SAIC
Frederick, NCI-Frederick, Frederick, MD 21702) For
information on which gene each clone represents, please
visit our anonymous ftp site at
ftp://image.lnl.gov/image/rearranged_plates/IRBK.presv.dat
a Note: this is a NIH_MGC Library."

ORIGIN
Query Match 67.1%; Score 231.4; DB 6; Length 492;
Best Local Similarity 80.4%; Pred. No. 1e-53;
Matches 271; Conservative 0; Mismatches 66; Indels 0; Gaps 0;

QY 9 AGAAATCCCATGATAGACTGTGCGAGACCTTGACATGCTCTCCACTCATCGAAC 68
DB 121 AGAAATCCCATGATAGACTGTGCGAGACCTTGACATGCTCTCTTCTACTCATCGAAC 180
QY 69 TTGGCTGATAGCGAATGGAACCTGATGATCTCTTCTCTGAAATATAATACCAACT 128
DB 181 TCTGCTGATAGCAATGAGACTGTGAGGATCTGTTCTGTACATAAATATCACTCAACT 240
QY 129 GTGCATTAAGAAGTTTTCAGGGTATGACACATTTGAAGACCAAACTGCCCGGGA 188
DB 241 GTGCATTAAGAAGTTTTCAGGGTATGACACATTTGAAGACCAAACTGCCCGGGA 300
QY 189 GGCTGTGATTAACGATTTCCAAACTTGTCTTTTATAATAAAGACACATAGAGCCCAAAA 248
DB 301 TACTGTGAAAGACTATTCAAAACTTGTCTTTATAAAGAAATACATTTGAGGCGCAAAA 360

QY 249 AAAAGGTGCGAGAGAAAGATGAGAGTGAACAAAGTTCTTACTGACTGCAAGTATT 308
DB 361 AAAAGGTGCGAGAGAAAGATGAGAGTGAACAAAGTTCTTACTGACTGCAAGTATT 420
QY 309 TCTTGTGTTAATAACACCGAGTGCACCGCAAAAT 345
DB 421 TCTTGTGTTAATAACACCGAGTGCATTAATAGAAAGT 457

RESULT 6
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LOCUS Pan troglodytes IL5 gene, VIRUAL TRANSCRIPT, partial sequence,
DEFINITION genomic survey sequence.
ACCESSION AY412021
VERSION AY412021.1 GI:39767986
KEYWORDS GSS.
SOURCE Pan troglodytes (chimpanzee)
ORGANISM Pan troglodytes
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Primates; Catarrhini; Homnidae; Pan.
REFERENCE 1 (bases 1 to 405)
AUTHORS Clark,A.G., Glanowski,S., Nielson,R., Thomas,P., Kejarival,A.,
Todd,M.A., Tanenbaum,D.M., Civello,D.R., Lu,F., Murphy,B.,
Ferreira,S., Wang,G., Zheng,X.H., White,T.J., Shinsky,J.J.,
Adams,M.D. and Cargill,M.
TITLE Inferring nonneutral evolution from human-chimp-mouse orthologous
gene trios
JOURNAL Science, 302 (5652), 1960-1963 (2003)
PUBMED 14671302
REFERENCE 2 (bases 1 to 405)
AUTHORS Clark,A.G., Glanowski,S., Nielson,R., Thomas,P., Kejarival,A.,
Todd,M.A., Tanenbaum,D.M., Civello,D.R., Lu,F., Murphy,B.,
Ferreira,S., Wang,G., Zheng,X.H., White,T.J., Shinsky,J.J.,
Adams,M.D. and Cargill,M.
TITLE Direct Submission
JOURNAL Submitted (16-NOV-2003) Celera Genomics, 45 West Gude Drive,
Rockville, MD 20850, USA
COMMENT This sequence was made by sequencing genomic exons and ordering
them based on alignment.
Location/Qualifiers
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ORIGIN
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Best Local Similarity 79.2%; Pred. No. 1.3e-52;
Matches 267; Conservative 0; Mismatches 70; Indels 0; Gaps 0;

QY 9 AGAAATCCCATGATAGACTGTGCGAGACCTTGACATGCTCTCCACTCATCGAAC 68
DB 66 AGAAATCCCATGATAGACTGTGCGAGACCTTGACATGCTCTCTTCTACTCATCGAAC 125
QY 69 TTGGCTGATAGCGAATGGAACCTGATGATCTCTTCTCTGAAATATAATACCAACT 128
DB 126 TCTGCTGATAGCAATGAGACTGTGAGGATCTGTTCTGTACATAAATATCACTCAACT 185
QY 129 GTGCATTAAGAAGTTTTCAGGGTATGACACATTTGAAGACCAAACTGCCCGGGA 188
DB 186 NMGCATGAAGAAATCTTTCAAGGAATAGCAACATCGAGAGTCAAACTGTGCAAGGGG 245
QY 189 GGCTGTGATTAACGATTTCCAAACTTGTCTTTTATAAAGAAACATAGAGCCCAAAA 248
DB 246 TACTGTGAAAGACTATTCAAAACTTGTCTTTATAAAGAAATACATTTGAGGCGCAAAA 305
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Db	306	AAAAAGTGTGAGAAAGAAACGAGAGTAAACCAATTCTAGACTACGAGAAGTT	365
Db	309	TCTTGCTATTAACACCCAGTGGACACCCGAAGT	345
Db	366	TCTTGCTATTAAGAACCGAGTGGATTAATGAAGT	402

RESULT 7	CD559608	477 bp	mRNA	linear	EST 26-NOV-2003
LOCUS	CD559608				
DEFINITION	AGENCOURT_14496997 NIH_MGC_195 Homo sapiens cDNA clone				
ACCESSION	IMAGE:6971867.5', mRNA sequence.				
VERSION	CD559608				
KEYWORDS	CD559608.2 GI:38558942				
SOURCE	EST.				
ORGANISM	Homo sapiens (human)				
REFERENCE	Homo sapiens				
AUTHORS	Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;				
TITLE	Mammalia; Eutheria; Primates; Catarrhini; Homnidae; Homo.				
JOURNAL	1 (bases 1 to 477)				
COMMENT	NIH-MGC http://mgs.nci.nih.gov/.				
	National Institutes of Health, Mammalian Gene Collection (MGC)				
	Unpublished (1999)				
	On Jun 10, 2003 this sequence version replaced gi:31585676.				
	Contact: Daniela S. Gerhard, Ph.D.				
	Office of Cancer Genomics				
	National Cancer Institute / NIH				
	Bldg. 31 Rm10A07 Bethesda, MD 20892				
	Email: cgsabbs-remail.nih.gov				
	Tissue Procurement: Narayan Bhat				
	cDNA Library Preparation: Bhat Laboratory				
	cDNA Library Arrayed by: The I.M.A.G.E. Consortium (LNL)				
	DNA Sequencing by: Agencourt Bioscience Corporation				
	Clone distribution: MGC clone distribution information can be				
	found through the I.M.A.G.E. Consortium/LNL at:				
	http://image.llnl.gov				
	Plate: IRBK2 row: 9 column: 10				
	High quality sequence start: 107				
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	Location/Qualifiers				
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	/clone_1lb="NIH MGC 195"				
	/note="Vector: pDNR-Dual, Site 1: loxp-SalI; Site 2:				
	loxP-HindIII; Clones from this library have been				
	PCR-amplified using gene-specific primers to contain the				
	complete open reading frame (based on known gene sequences				
	available from NCBI's RefSeq). Template for PCR is cDNA				
	derived from either pooled cytoplasmic polyA RNA from 30				
	cells lines or pooled total RNA from 10 different tissues				
	(from BD Biosciences/Clontech and Washington University).				
	PCR products are directionally cloned into the loxp sites				
	of the pDNR-Dual vector. Library constructed by Dr.				
	Narayan Bhat, Earl Bere III and Hongling Liao (Gene				
	Expression Laboratory, Research Technology Program, SAIC				
	Frederick, NCI-Frederick, Frederick, MD 21702). For				
	information on which gene each clone represents, please				
	visit our anonymous ftp site at				
	ftp://image.llnl.gov/image/fearrayed_plates/IRBK.presv.data				
	a Note: this is a NIH-MGC Library."				

ORIGIN

```

Query Match 36: 64.5%; Score 222.4; DB 6; length 477;
Best Local Similarity 78.9%; Pred.No. 3.4e-51;
Matches 265; Conservative 0; Mismatches 71; Indels 0; Gaps 0
QY 10 GAAATCCATGAATGAGTGGTGCAGAGACTTGACATGCTCTCCACATGGAAT 69
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Db	107	GAAATTC	CCAAAGG	CATTGTG	AAAGAG	CTTGG	CACTG	CTTCTACT	GTGTG	AACT	166							
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Db	167	CTGCTG	ATAGCC	AATGAG	CTCTG	AGGATTC	CTGTTC	CTGTAC	TATAAA	ATATAC	CACTG	226						
Qy	130	TGCATT	AAAGAG	TTTTC	CAGGG	TATG	ACAC	ATTGAA	GAAC	CAAACT	GCC	CGGGAG	189					
Db	227	TGCACTG	AGAAATCT	TTTCAG	GGATAT	TGCA	CAC	TGAGAG	AGTCA	AACTGTG	TGAA	GGGGGT	286					
Qy	190	GCTGTG	ATTA	ACTATT	TCCAA	ACTGT	CTTTA	TATAAA	GAAC	CATAG	CGCC	AAAAA	249					
Db	287	ACTGTG	AAAA	ACTATT	TCCAA	AACTGT	CTTTA	TATAAA	GAATAT	CATTG	ACGG	CCAAAA	346					
Qy	250	AAAAG	GTG	CA	GGAG	AAAG	ATG	AG	ATG	ACAA	AGTTCT	TAG	CTA	CTG	CA	AGT	ATTT	309
Db	347	AAAAA	GCCTG	TAG	AAAG	AAAG	ACGG	AG	ATAA	CAAACT	CTTAA	CTA	CTG	CA	AG	ATTT	406	
Qy	310	CTTGTG	TAT	ATAA	CAC	CG	ATG	AG	CAC	CGG	AAAG	T	345					
Db	407	CTTGTG	TAT	ATG	AA	CA	CCG	AG	TG	AT	TAT	TAA	AGT	442				

RESULT	8
BC066281	
LOCUS	BC066281
DEFINITION	BC066281 Homo sapiens cDNA clone IMAGE:6971770, containing frame-shift errors.
ACCESSION	BC066281
VERSION	BC066281.1
KEYWORDS	GI:42490969
SOURCE	HTC.
ORGANISM	Homo sapiens (human)
	Homo sapiens

Euarchyotia; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Primates; Catarrhini; Homnidae; Homo. 1 (bases 1 to 456)

Strausberg, R.L., Feingold, E.A., Derge, J.G., ...

TITLE
 JOURNAL
 PUBLISHED
 REFERENCE
 AUTHORS
 TITLE
 JOURNAL
 Submitted (03-FEB-2004) National Institutes of Health, Mammalian
 Gene Collection (MGC), Cancer Genomics Office, National Cancer
 Institute, 31 Center Drive, Room 11A03, Bethesda, MD 20892-2590,
 USA

REMARK	NIH-MGC Project URL: http://mgc.nci.nih.gov
COMMENT	Contact: MGC help desk Email: cgapbs-remail.nih.gov Tissue Procurement: Narayan Bhat cDNA Library Preparation: Bhat Laboratory cDNA Library Arrayed by: The I.M.A.G.E. Consortium (LLNL) DNA Sequencing by: Sequencing Group at the Stanford Human Center, Stanford University School of Medicine, Stanford, CA 94305

Web site: <http://www-shgc.stanford.edu>
 Contact: (Dickson, Mark) mcdpaxil.stanford.edu
 Dickson, M., Schmutz, J., Grimwood, J., Rodriguez, A., and Myers, R. M.

Clone distribution: MGC clone distribution information can be found through the I.M.A.G.E. Consortium/LINL at: <http://image.llnl.gov>
 Series: IRAX Plate: 172 Row: a Column: 17
 This clone was selected for full length sequencing because it passed the following selection criteria: matched mRNA gi: 28559032
 This clone has the following problem: frame shifted.

FEATURES

Source

1..456
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 /note="Vector: pDNR-Dual"

ORIGIN

Query Match 64.1%; Score 221; DB 3; Length 456;
 Best Local Similarity 80.4%; Pred. No. 8,4e-51;
 Matches 271; Conservative 0; Mismatches 65; Indels 1; Gaps 1;

9 AGAAATCCCATGATAGTACTGTCGAGAGACCTTGACACTGCTCCACATCGAAC 68
 89 AGAAATCCCATGATAGTACTGTCGAGAGACCTTGACACTGCTCCACATCGAAC 148
 69 TTGGCTGATAGGCGATGAGGAACTGATGATCTCTCTGAAATTAATCAACAAC 128
 149 TCTGCTGATAGGCGATGAGGAACTGATGATCTCTCTGAAATTAATCAACAAC 208
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 189 GGCTGATAGATTAATTCACAACTGCTTTAATTAAGAACACATAGAGGCCAA 248
 269 TACTGTGAGAAAGACTATTCACAACTGCTTTAATTAAGAACACATAGAGGCCAA 328
 249 AAAAAGTGTGACGAGAAAGATGAGAGTGAACAAGTCTTACCTGCAAGTAT 308
 329 AAAAAGTGTGACGAGAAAGATGAGAGTGAACAAGTCTTACCTGCAAGTAT 387
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 388 TCTTGTGATTAATTAACCGAGTGAACACCGGAAAGT 424

RESULT 9
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 DEFINITION ABENCOUR_14496964 NIH_MGC_195 Homo sapiens cDNA clone
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 ACCESSION CD559688
 VERSION CD559688.2 GI:38453486
 KEYWORDS EST.
 SOURCE Homo sapiens (human)
 ORGANISM Homo sapiens

REFERENCE Eukaryote; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Primates; Catarrhini; Homiidae; Homo.
 1 (bases 1 to 467)
 NIH-MGC <http://mgc.ncl.nih.gov/>.
 Unpublished (1999)
 TITLE National Institutes of Health, Mammalian Gene Collection (MGC)
 JOURNAL On Jun 10, 2003 this sequence version replaced gi:31585756.
 COMMENT Contact: Daniela S. Gerhard, Ph.D.
 National Cancer Institute / NIH
 Bldg. 31 Rm10A07 Bethesda, MD 20892

Email: cgabbs-r@mail.nih.gov
 Tissue Procurement: Narayan Bhat
 CDNA Library Preparation: Bhat Laboratory
 DNA Sequencing by: Agencourt Bioscience Corporation
 Clone distribution: MGC clone distribution information can be found through the I.M.A.G.E. Consortium/LINL at:
<http://image.llnl.gov>

Plate: IRBX1 row: 9 column: 09
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 High quality sequence stop: 467.

FEATURES

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 /clone="IMAGE:6971770"
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 /lab_host="DH5A (11 phage-resistant)"
 /note="Vector: pDNR-Dual; Site 1: loxp-SalI; Site 2: loxp-HindIII; Clones from this library have been PCR-amplified using gene-specific primers to contain the complete open reading frame (based on known gene sequences available from NCBI's RefSeq). Template for PCR is cDNA derived from either pooled cytoplasmic polyA RNA from 30 cells lines or pooled total RNA from 10 different tissues (from BD Biosciences/Clontech and Washington University). PCR products are directionally cloned into the loxp sites of the pDNR-Dual vector. Library constructed by Dr. Narayan Bhat, Earl Bere III and Hongling Luo (Gene Expression Laboratory, Research Technology Program, SAIC Frederick, NCI-Frederick, Frederick, MD 21702). For information on which gene each clone represents, please visit our anonymous ftp site at ftp://image.llnl.gov/image/rearranged_plates/IRBX.presv.dat
 A Note: This is a NIH_MGC Library."

ORIGIN

Query Match 64.1%; Score 221; DB 6; Length 467;
 Best Local Similarity 80.4%; Pred. No. 8,4e-51;
 Matches 271; Conservative 0; Mismatches 65; Indels 1; Gaps 1;

9 AGAAATCCCATGATAGTACTGTCGAGAGACCTTGACACTGCTCCACATCGAAC 68
 378 AGAAATCCCATGATAGTACTGTCGAGAGACCTTGACACTGCTCCACATCGAAC 319
 69 TTGGCTGATAGGCGATGAGGAACTGATGATCTCTCTGAAATTAATCAACAAC 128
 318 TCTGCTGATAGGCGATGAGGAACTGATGATCTCTCTGAAATTAATCAACAAC 259
 129 GTGCATTAAGAGATTTTCAAGGTATAGACACTTGAAGAACCAATCCCAAGGGA 188
 258 GTGCATTAAGAGATTTTCAAGGTATAGACACTTGAAGAACCAATCCCAAGGGA 199
 189 GGCTGATAGATTAATTCACAACTGCTTTAATTAAGAACACATAGAGGCCAA 248
 198 TACTGTGAGAAAGACTATTCACAACTGCTTTAATTAAGAACACATAGAGGCCAA 139
 249 AAAAAGTGTGACGAGAAAGATGAGAGTGAACAAGTCTTACCTGCAAGTAT 308
 138 AAAAAGTGTGACGAGAAAGATGAGAGTGAACAAGTCTTACCTGCAAGTAT 80
 309 TCTTGTGATTAATTAACCGAGTGAACACCGGAAAGT 345
 79 TCTTGTGATTAATTAACCGAGTGAACACCGGAAAGT 43

RESULT 10
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 DEFINITION ABENCOUR_14496928 NIH_MGC_195 Homo sapiens cDNA clone
 IMAGE:6971770 5', mRNA sequence.

ACCESSION CD559534 GI:38558949
 VERSION EST.
 KEYWORDS Homo sapiens (human)
 SOURCE Homo sapiens
 ORGANISM Eukaryote; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Primates; Catarrhini; Homnidae; Homo.
 REFERENCE 1 (bases 1 to 478)
 AUTHORS NIH-MGC http://mgc.nci.nih.gov/
 TITLE National Institutes of Health, Mammalian Gene Collection (MGC)
 JOURNAL Unpublished (1999)
 COMMENT On Jun 10, 2003 this sequence version replaced gi:31585602.
 Contact: Daniela S. Gerhard, Ph.D.
 Office of Cancer Genomics
 National Cancer Institute / NIH
 Bldg. 31 Rm10A07 Bethesda, MD 20892
 Email: cgabs-remail.nih.gov
 Tissue Procurement: Narayan Bhat
 cDNA Library Preparation: Bhat Laboratory
 DNA Library Arrayed by: The I.M.A.G.E. Consortium (LNL)
 Clone distribution: MGC clone distribution information can be found through the I.M.A.G.E. Consortium/LNL at:
 http://image.llnl.gov
 Plate: IRBK1 row: 9 column: 09
 High quality sequence start: 3
 High quality sequence stop: 478.
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 /db_xref="taxon:9606"
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 /clone_id="NIH_MGC_195"
 /note="Vector: pDNR-Dual; Site 1: loxp-SalI; Site 2: loxp-HindIII. Clones from this library have been PCR-amplified using gene-specific primers to contain the complete open reading frame (based on known gene sequences available from NCBI's RefSeq). Template for PCR is cDNA derived from either pooled cytoplasmic polyA RNA from 30 cells lines or pooled total RNA from 10 different tissues (from BD Biosciences/Clontech and Washington University). PCR products are directionally cloned into the loxp sites of the pDNR-Dual vector. Library constructed by Dr. Narayan Bhat, Earl Bere III and Hongling Liao (Gene Expression Laboratory, Research Technology Program, SAIC Frederick, NCI-Frederick, Frederick, MD 21702). For information on which gene each clone represents, please visit our anonymous ftp site at ftp://image.llnl.gov/image/rearranged_plates/IRBK-presv.dat
 a Note: this is a NIH_MGC Library."

Db 290 TACTGTGAAAGACTATTCAAACTTGTCTTAATTAAGAAATACATTGACGGCCAAA 349
 Qy 249 AAAAGTGTGACGAGAAAGATGAGACAAAGTTCTGACACTGCAAGTATT 308
 Db 350 AAAAA-GTGTGAGAAAGAAAGACGAGTAACCAATTTCTGACTCTGCAAGGTT 408
 Qy 309 TCTTGTGTAAATAACACCGAGTGGAACCCGAAAGT 345
 Db 409 TCTTGTGTAAATAACACCGAGTGATTAATAGAAAGT 445
 RESULT 11
 LOCUS BC066279
 DEFINITION Homo sapiens cDNA clone IMAGE:6971768, containing frame-shift errors.
 ACCESSION BC066279 GI:42490901
 VERSION BC066279.1
 KEYWORDS Homo sapiens (human)
 SOURCE Homo sapiens
 ORGANISM Eukaryote; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Primates; Catarrhini; Homnidae; Homo.
 REFERENCE 1 (bases 1 to 458)
 AUTHORS Strausberg, R.L., Feingold, E.A., Grouse, L.H., Derge, J.G., Klausner, R.D., Collins, F.S., Wagner, L., Shenmen, C.M., Shuler, G.D., Altschul, S.F., Zeeberg, B., Buetow, K.H., Schaefer, C.F., Bhat, N.K., Hopkins, R.F., Jordan, H., Moore, T., Max, S.L., Wang, J., Heien, F., Diatchenko, L., Marusina, K., Farmer, A.A., Rubin, G.M., Hong, L., Stapleton, M., Soares, M.B., Bonaldo, M.F., Casavant, T.L., Scheetz, T.E., Brownstein, M.J., Ushed, T.B., Toshlyuk, S., Carninci, P., Prange, C., Raha, S.S., Loquellano, N.A., Peters, G.J., Abramson, R.D., Mullahy, S.J., Bosak, S.A., McEwan, P.J., McKernan, K.J., Malek, J.A., Gunaratne, P.H., Richards, S., Worley, K.C., Hale, S., Garcia, A.M., Gay, L.J., Hu, X., Gibbs, R.A., Villalon, D.K., Muzny, D.M., Sodergren, E.J., Lu, X., Gibbs, R.A., Sanchez, J., Helton, E., Ketchum, M., Madan, A., Young, A.C., Shevchenko, Y., Bouffard, G.G., Blakeley, R.W., Touchman, J.W., Green, E.D., Dickson, M.C., Rodriguez, A.C., Grimwood, J., Schmutz, U., Myers, R.M., Butlerfield, Y.S., Krzywinski, M.I., Skalske, U., Smalins, D.E., Schnerch, A., Schein, J.E., Jones, S.J., and Marra, M.A.
 human and mouse cDNA sequences
 Proc. Natl. Acad. Sci. U.S.A. 99 (26), 16899-16903 (2002)
 12477932
 2 (bases 1 to 458)
 Strausberg, R.
 Direct Submission
 Submitted (03-FEB-2004) National Institutes of Health, Mammalian Gene Collection (MGC), Cancer Genomics Office, National Cancer Institute, 31 Center Drive, Room 11A03, Bethesda, MD 20892-2590, USA
 NIH-MGC Project URL: http://mgc.nci.nih.gov
 Contact: MGC help desk
 Email: cgabs-remail.nih.gov
 Tissue Procurement: Narayan Bhat
 cDNA Library Preparation: Bhat Laboratory
 DNA Sequencing by: Sequencing Group at the Stanford Human Genome Center, Stanford University School of Medicine, Stanford, CA 94305
 Web site: http://www-ehgc.stanford.edu
 Contact: (Dickson, Mark) mcd@paxil.stanford.edu
 Dickson, M., Schmutz, J., Grimwood, J., Rodriguez, A., and Myers, R.M.
 Clone distribution: MGC clone distribution information can be found through the I.M.A.G.E. Consortium/LNL at: http://image.llnl.gov
 Series: IRBK Plate: 172 Row: a Column: 15
 This clone was selected for full length sequencing because it passed the following selection criteria: matched mRNA gi: 28559032
 This clone has the following problem: frame shifted.
 Location/Qualifiers

source 1..458
/organism="Homo sapiens"
/mol_type="mRNA"
/db_xref="taxon:9606"
/clone="IMAGE:6971768"
/issue_type="PCR rescued clones"
/clone_lib="NIH_MGC_195"
/lab_host="DH10B"
/note="Vector: pDNR-Dual"

ORIGIN

Query Match 63.9%; Score 220.4; DB 3; Length 458;
Best Local Similarity 80.2%; Pred. No. 1.2e-50;
Matches 271; Conservative 0; Mismatches 66; Indels 1; Gaps 1;

QY 9 AGAAATCCCATGATAGACTGTGTGCGAGAGACCTTGACACTGCTCTCCACTCATCGAAC 68
DB 89 AGAAATCCCATGATAGACTGTGTGCGAGAGACCTTGACACTGCTCTCTCATCTCATCGAAC 148
QY 69 TTGGCTGATAGCGCATGCGAAGCTGATGATTTCTTCTGAAAAATTAATACCAACT 128
DB 149 TTGGCTGATAGCGCATGCGAAGCTGATGATTTCTTCTGAAAAATTAATACCAACT 208
QY 129 GTGATTAAGAAGTTTTCAGGGTATAGACATTTGAAGAACCAACTGCCACGGGGA 188
DB 209 GTGATTAAGAAGTTTTCAGGGTATAGACATTTGAAGAACCAACTGCCACGGGGA 268
QY 189 GGCTGTGATTAAGTATTTCCAAACTTGTCTTTATTAAGAAACACATAGAGCGCC-AAA 247
DB 269 TACTGTGAAGAAGCTATTTCAGAAAGCTGTCTTATTAAGAAACACATAGAGCGCCAAA 328
QY 248 AAAAAAGGTGTGCGAGAAAGATGAGAGTGAACAAGTTCTTACTGACTGCTGCAAGTAT 307
DB 329 AAAAAAGGTGTGCGAGAAAGATGAGAGTGAACAAGTTCTTACTGACTGCTGCAAGTAT 388
QY 308 TTCTGTGATTAAGAAGCTGATGATTTCTTCTGAAAAATTAATACCAACT 345
DB 389 TTCTGTGATTAAGAAGCTGATGATTTCTTCTGAAAAATTAATACCAACT 426

RESULT 12
LOCUS BC066280 458 bp mRNA linear HTC 12-FEB-2004
DEFINITION Homo sapiens cDNA clone IMAGE:6971769, containing frame-shift errors.
ACCESSION BC066280
VERSION BC066280.1 GI:42490838
KEYWORDS HTC.
SOURCE Homo sapiens (human)
ORGANISM Homo sapiens
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Primates; Catarrhini; Homnidae; Homo.
1 (bases 1 to 458)
Straussberg, R.L., Pelting, B.A., Grouse, L.H., Derge, J.G., Klausner, R.D., Collins, F.S., Wagner, L., Shenmen, C.M., Schuler, G.D., Altschul, S.F., Zeeberg, B., Bueltow, K.H., Schaefer, C.F., Bhat, N.K., Hopkins, R.F., Jordan, H., Moore, T., Max, S.I., Wang, J., Heide, F., Diatchenko, L., Marusina, K., Farmer, A.A., Rubin, G.M., Hong, L., Stappleton, M., Soares, M.B., Bonaldo, M.F., Casavant, T.L., Schaefer, T.E., Brownstein, M.J., Ustin, T.B., Toshitoki, S., Cerinchi, P., Prange, C., Kaha, S.S., Loquellano, N.A., Peters, G.J., Abramson, R.D., Mullaly, S.J., Bosak, S.A., McEwan, P.J., Mckernan, K.J., Malek, J.A., Gamaralane, P.H., Richards, S., Worley, K.C., Hale, S., Garcia, A.M., Gay, L.J., Huijk, S.W., Villalón, D.K., Muzny, D.M., Sodergren, E.J., Lu, X., Gibbs, R.A., Sanchez, A., Whiting, M., Madan, A., Young, A.C., Shvachenko, Y., Bouffard, G.G., Blakesley, R.W., Touchman, J.W., Green, E.D., Dickson, M.C., Rodriguez, A.C., Grimwood, J., Schmutz, J., Myers, R.M., Buttefield, Y.S., Krzywinski, M.I., Skalek, U., Smallus, D.E., Schnerch, A., Schein, J.E., Jones, S.J. and Marra, M.A.
Generation and initial analysis of more than 15,000 full-length human and mouse cDNA sequences

JOURNAL
PUBMED 12477932
REFERENCE 2 (bases 1 to 458)
AUTHORS Straussberg, R.
TITLE Direct Submission
JOURNAL Submitted (03-FEB-2004) National Institutes of Health, Mammalian Gene Collection (MGC), Cancer Genomics Offices, National Cancer Institute, 31 Center Drive, Room 11A03, Bethesda, MD 20892-2550, USA
NIH-MGC Project URL: <http://mgc.ncl.nih.gov>
Contact: MGC help desk
Email: cgabs-remail.nih.gov
Tissue Procurement: Narayan Bhat
CDNA Library Preparation: Bhat Laboratory
CDNA Library Arrayed by: The I.M.A.G.E. Consortium (LNL)
DNA Sequencing by: Sequencing Group at the Stanford Human Genome Center, Stanford University School of Medicine, Stanford, CA 94305
Web site: <http://www.ahgc.stanford.edu>
Contact: (Dickson, Mark) mcd@paxil.stanford.edu
Dickson, M., Schmutz, J., Grimwood, J., Rodriguez, A., and Myers, R. M.

REMARK
COMMENT
Email: cgabs-remail.nih.gov
Tissue Procurement: Narayan Bhat
CDNA Library Preparation: Bhat Laboratory
CDNA Library Arrayed by: The I.M.A.G.E. Consortium (LNL)
DNA Sequencing by: Sequencing Group at the Stanford Human Genome Center, Stanford University School of Medicine, Stanford, CA 94305
Web site: <http://www.ahgc.stanford.edu>
Contact: (Dickson, Mark) mcd@paxil.stanford.edu
Dickson, M., Schmutz, J., Grimwood, J., Rodriguez, A., and Myers, R. M.

FEATURES
source
1..458
/organism="Homo sapiens"
/mol_type="mRNA"
/db_xref="taxon:9606"
/clone="IMAGE:6971769"
/issue_type="PCR rescued clones"
/clone_lib="NIH_MGC_195"
/lab_host="DH10B"
/note="Vector: pDNR-Dual"

ORIGIN

Query Match 63.9%; Score 220.4; DB 3; Length 458;
Best Local Similarity 80.2%; Pred. No. 1.2e-50;
Matches 271; Conservative 0; Mismatches 66; Indels 1; Gaps 1;

QY 9 AGAAATCCCATGATAGACTGTGTGCGAGAGACCTTGACACTGCTCTCCACTCATCGAAC 68
DB 89 AGAAATCCCATGATAGACTGTGTGCGAGAGACCTTGACACTGCTCTCTCATCTCATCGAAC 148
QY 69 TTGGCTGATAGCGCATGCGAAGCTGATGATTTCTTCTGAAAAATTAATACCAACT 128
DB 149 TTGGCTGATAGCGCATGCGAAGCTGATGATTTCTTCTGAAAAATTAATACCAACT 208
QY 129 GTGATTAAGAAGTTTTCAGGGTATAGACATTTGAAGAACCAACTGCCACGGGGA 188
DB 209 GTGATTAAGAAGTTTTCAGGGTATAGACATTTGAAGAACCAACTGCCACGGGGA 268
QY 189 GGCTGTGATTAAGTATTTCCAAACTTGTCTTTATTAAGAAACACATAGAGCGCC-AAA 247
DB 269 TACTGTGAAGAAGCTATTTCAGAAAGCTGTCTTATTAAGAAACACATAGAGCGCCAAA 328
QY 248 AAAAAAGGTGTGCGAGAAAGATGAGAGTGAACAAGTTCTTACTGACTGCTGCAAGTAT 307
DB 329 AAAAAAGGTGTGCGAGAAAGATGAGAGTGAACAAGTTCTTACTGACTGCTGCAAGTAT 388
QY 308 TTCTGTGATTAAGAAGCTGATGATTTCTTCTGAAAAATTAATACCAACT 345
DB 389 TTCTGTGATTAAGAAGCTGATGATTTCTTCTGAAAAATTAATACCAACT 426

RESULT 13
LOCUS CD559535 463 bp mRNA linear EST 26-NOV-2003
DEFINITION AGENCOURT_14496865 NIH_MGC_195 Homo sapiens cDNA clone

IMAGE:6971769 5', mRNA sequence.
CD559535
VERSION CD559535.2 GI:38558950
KEYWORDS EST.
SOURCE Homo sapiens (human)
ORGANISM Homo sapiens
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Primates; Catarrhini; Homidae; Homo.
1 (bases 1 to 463)
NIH-MGC http://mgs.nci.nih.gov/.
TITLE National Institutes of Health, Mammalian Gene Collection (MGC)
JOURNAL Unpublished (1999)
On Jun 10, 2003 this sequence version replaced gi:31585603.
Contact: Daniela S. Gerhard, Ph.D.
Office of Cancer Genomics
National Cancer Institute / NIH
Bldg. 31 Rm10A07 Bethesda, MD 20892
Email: cgabs-remail.nih.gov
Tissue Procurement: Narayan Bhat
CDNA Library Preparation: Bhat Laboratory
DNA Sequencing by: Agencourt Bioscience Corporation
Clone distribution: MGC clone distribution information can be
found through the I.M.A.G.E. Consortium/LNL at:
http://image.llnl.gov
Plate: IRBK1 row: 9 column: 08
High quality sequence stop: 463.
Location/Qualifiers
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/mol_type="mRNA"
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/clone="IMAGE:6971769"
/issue_type="mixed"
/lab_host="DH5A (T1 phage-resistant)"
/clone_id="NIH_MGC_195"
/note="Vector: pDNR-Dual; Site 1: loxp-Sall; Site 2:
loxP-HindIII; Clones from this library have been
PCR-amplified using gene-specific primers to contain the
complete open reading frame (based on known gene sequences
available from NCBI's RefSeq). Template for PCR is cDNA
derived from either pooled cytoplasmic polyA RNA from 30
cells lines or pooled total RNA from 10 different tissues
(from BD Biosciences/Clontech and Washington University).
PCR products are directionally cloned into the loxp sites
of the pDNR-Dual vector. Library constructed by Dr.
Narayan Bhat, Earl Bere III and Hongling Liao (Gene
Expression Laboratory, Research Technology Program, SAIC
Frederick, NCI-Frederick, Frederick, MD 21702). For
information on which gene each clone represents, please
visit our anonymous ftp site at
ftp://image.llnl.gov/image/rearrayed_plates/IRBK.presv.dat
a Note: this is a NIH_MGC Library."

ORIGIN
Query Match 63.9%; Score 220.4; DB 6; Length 463;
Best Local Similarity 80.2%; Pred. No. 1.2e-50;
Matches 271; Conservative 0; Mismatches 66; Indels 1; Gaps 1;
QY 9 AGAAATCCCATGATGACTGTGGCAGAGACCTTGACATGCTTCACATCGAAC 68
DB 93 AGAATTCGCCAGATGATGTGGAAGAGACCTTGCACTGCTTCTACTCATCGAAC 152
QY 69 TTGGCTGATAGGCGATGGAACTGATGATCTTCACTCTGAAATAAATACCAACT 128
DB 153 TCTCTGATACCAATGAGACTCTGAGATTCCTGTTCTTACATAAATTCACCACT 212
QY 129 GTGCAATTAAGAGATTTTCAAGGATATGACACATGGAACCAACTGCCCGGGGA 188
DB 213 GTGACATGAAGAAATCTTTCAGGAAATGCGACACTGAGAGTCAAACTGTGCAAGGGG 272
QY 189 GGGTGTGATTAACATTTCAAACTGTCTTATAAAGAACACATAGAGCGCC-AAA 247
|||||

DB 273 TACTGTGAAAGACTATTCAAAAATTGCTCTTAATAAAGAAATACATGACGCCAAAA 332
QY 248 AAAAAGGTGTGACGAGAAAGATGAGAGTACAAAGTTCTAGACTACCTGCAAGTAT 307
DB 333 AAAAAGGTGTGAGAAAGAGACGAGAGTAAACCAATTCCTAGACTACCTGCAAGT 392
QY 308 TTCTTGATTAATAACACCGAGTGTGACACCGGAAGT 345
DB 393 TTCTTGATTAATAACACCGAGTGTGATATAGAAAT 430
RESULT 14
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LOCUS
DEFINITION AGENCOURT 14496901 NIH_MGC_195 Homo sapiens cDNA clone
IMAGE:6971769 5', mRNA sequence.
ACCESSION CD559689
VERSION CD559689
KEYWORDS EST.
SOURCE Homo sapiens (human)
ORGANISM Homo sapiens
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Primates; Catarrhini; Homidae; Homo.
1 (bases 1 to 473)
NIH-MGC http://mgs.nci.nih.gov/.
TITLE National Institutes of Health, Mammalian Gene Collection (MGC)
JOURNAL Unpublished (1999)
On Jun 10, 2003 this sequence version replaced gi:31585757.
Contact: Daniela S. Gerhard, Ph.D.
Office of Cancer Genomics
National Cancer Institute / NIH
Bldg. 31 Rm10A07 Bethesda, MD 20892
Email: cgabs-remail.nih.gov
Tissue Procurement: Narayan Bhat
CDNA Library Preparation: Bhat Laboratory
DNA Sequencing by: Agencourt Bioscience Corporation
Clone distribution: MGC clone distribution information can be
found through the I.M.A.G.E. Consortium/LNL at:
http://image.llnl.gov
Plate: IRBK1 row: 9 column: 08
High quality sequence start: 16
High quality sequence stop: 473.
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/organism="Homo sapiens"
/mol_type="mRNA"
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/clone="IMAGE:6971769"
/issue_type="mixed"
/lab_host="DH5A (T1 phage-resistant)"
/clone_id="NIH_MGC_195"
/note="Vector: pDNR-Dual; Site 1: loxp-Sall; Site 2:
loxP-HindIII; Clones from this library have been
PCR-amplified using gene-specific primers to contain the
complete open reading frame (based on known gene sequences
available from NCBI's RefSeq). Template for PCR is cDNA
derived from either pooled cytoplasmic polyA RNA from 30
cells lines or pooled total RNA from 10 different tissues
(from BD Biosciences/Clontech and Washington University).
PCR products are directionally cloned into the loxp sites
of the pDNR-Dual vector. Library constructed by Dr.
Narayan Bhat, Earl Bere III and Hongling Liao (Gene
Expression Laboratory, Research Technology Program, SAIC
Frederick, NCI-Frederick, Frederick, MD 21702). For
information on which gene each clone represents, please
visit our anonymous ftp site at
ftp://image.llnl.gov/image/rearrayed_plates/IRBK.presv.dat
a Note: this is a NIH_MGC Library."

ORIGIN
Query Match 63.9%; Score 220.4; DB 6; Length 473;
Best Local Similarity 80.2%; Pred. No. 1.2e-50;

Matches 271; Conservative 0; Mismatches 66; Indels 1; Gaps 1;

QY 9 AGAATATCCCATGATAGACTGTGTCAGAGACCTTGACACTGCTCCACTCATGCAAC 68

DB 384 AGAATATCCCATGATAGACTGTGTCAGAGACCTTGACACTGCTCCACTCATGCAAC 325

QY 69 TTGGCTGATAGGCGATGGGAACTGATGATTTCTTCTGAAATTAATAATCACTACT 128

DB 324 TTGCTGATAGGCGATGGGAACTGATGATTTCTTCTGAAATTAATAATCACTACT 265

QY 129 GTGCATTAAGAAAGTTTTCAGGGTATGACATTTGAGAACCAACCTGCCACGGGGA 188

DB 264 GTGCATTAAGAAAGTTTTCAGGGTATGACATTTGAGAACCAACCTGCCACGGGGA 205

QY 189 GGCTGATTAATTAATTAATTAATTAATTAATTAATTAATTAATTAATTAATTAAT 247

DB 204 TACTGTGAAAGAACTATTAATTAATTAATTAATTAATTAATTAATTAATTAATTAAT 145

QY 248 AAAAAAGTGTGAGGAAAGATGAGAGTACAAAGTTCTTACACTTACCTGCAAGTAT 307

DB 144 AAAAAAGTGTGAGGAAAGATGAGAGTACAAAGTTCTTACACTTACCTGCAAGTAT 85

QY 308 TTCTGTGATTAATTAATTAATTAATTAATTAATTAATTAATTAATTAATTAAT 345

DB 84 TTCTGTGATTAATTAATTAATTAATTAATTAATTAATTAATTAATTAATTAAT 47

RESULT 15 489 bp mRNA linear EST 26-NOV-2003

CD559536

LOCUS AGENCOURT_14496804 NIH_MGC_195 Homo sapiens cDNA clone

DEFINITION IMAGE:6971768 5', mRNA sequence.

ACCESSION CD559536

VERSION CD559536.2 GI:38558953

KEYWORDS EST.

SOURCE Homo sapiens (human)

ORGANISM Homo sapiens

REFERENCE Eukaryote; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Primates; Catarrhini; Homnidae; Homo. 1 (bases 1 to 489)

AUTHORS NIH-MGC http://mgi.nci.nih.gov/.

TITLE National Institutes of Health, Mammalian Gene Collection (MGC)

JOURNAL Unpublished (1999)

COMMENT On Jun 10, 2003 this sequence version replaced gi:31585604. Contact: Daniela S. Gerhard, Ph.D. Office of Cancer Genomics National Cancer Institute / NIH Bldg. 31 Rm10A07 Bethesda, MD 20892 Email: cgaops-remail.nih.gov Tissue Procurement: Narayan Bhat CDNA Library Preparation: Bhat Laboratory CDNA Library Arrayed by: The I.M.A.G.E. Consortium (LNL) DNA Sequencing by: Agencourt Bioscience Corporation Clone distribution: MGC clone distribution information can be found through the I.M.A.G.E. Consortium/LNL at: http://image.lnl.gov Plate: IRBK1 row: 9 column: 07 High quality sequence start: 17 High quality sequence stop: 489. Location/Qualifiers

FEATURES

SOURCE 1..489

organism="Homo sapiens"

molecule="mRNA"

db_xref="taxon:9606"

clone="IMAGE:6971768"

issue_type="mixed"

lab_host="DH5A (TI phage-resistant)"

clone_id="NIH_MGC_195"

note="Vector: pDNR-Dual; Site 1: loxp-Sall; Site 2: loxp-HindIII; Clones from this library have been PCR-amplified using gene-specific primers to contain the complete open reading frame (based on known gene sequences available from NCBI's RefSeq). Template for PCR is cDNA

derived from either pooled cytoplasmic polyA RNA from 30 cells lines or pooled total RNA from 10 different tissues (from BD Biosciences/Clontech and Washington University). PCR products are directionally cloned into the loxp sites of the pDNR-Dual vector. Library constructed by Dr. Narayan Bhat, Earl Bere III and Hongling Liao (Gene Expression Laboratory, Research Technology Program, SAIC Frederick, NCI-Frederick, Frederick, MD 21702). For information on which gene each clone represents, please visit our anonymous ftp site at ftp://image.lnl.gov/image/reaarrayed_plates/IRBK_presv.dat a Note: this is a NIH_MGC Library."

ORIGIN

Query Match 63.9%; Score 220.4; DB 6; Length 489;

Best Local Similarity 80.2%; Pred. No. 1,2e-50;

Matches 271; Conservative 0; Mismatches 66; Indels 1; Gaps 1;

QY 9 AGAATATCCCATGATAGACTGTGTCAGAGACCTTGACACTGCTCCACTCATGCAAC 68

DB 119 AGAATATCCCATGATAGACTGTGTCAGAGACCTTGACACTGCTCCACTCATGCAAC 178

QY 69 TTGGCTGATAGGCGATGGGAACTGATGATTTCTTCTGAAATTAATAATCACTACT 128

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QY 129 GTGCATTAAGAAAGTTTTCAGGGTATGACATTTGAGAACCAACCTGCCACGGGGA 188

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QY 189 GGCTGATTAATTAATTAATTAATTAATTAATTAATTAATTAATTAATTAAT 247

DB 299 TACTGTGAAAGAACTATTAATTAATTAATTAATTAATTAATTAATTAATTAATTAAT 358

QY 248 AAAAAAGTGTGAGGAAAGATGAGAGTACAAAGTTCTTACACTTACCTGCAAGTAT 307

DB 359 AAAAAAGTGTGAGGAAAGATGAGAGTACAAAGTTCTTACACTTACCTGCAAGTAT 418

QY 308 TTCTGTGATTAATTAATTAATTAATTAATTAATTAATTAATTAATTAATTAAT 345

DB 419 TTCTGTGATTAATTAATTAATTAATTAATTAATTAATTAATTAATTAATTAAT 456

Search completed: August 8, 2005, 08:46:08

Job time: 1469.11 secs

Tue Aug 9 08:32:35 2005

GenCore version 5.1.6
Copyright (c) 1993 - 2005 Compugen Ltd.

OM nucleic - nucleic search, using sw model

Run on: August 8, 2005, 13:33:24 : Search time 7985.9 Seconds
(without alignments)
10060.080 Million cell updates/sec

Title: US-10-787-382-18

Perfect score: 1658
Sequence: 1 aggcacacactgacatttc.....gtatggaagattcttgaga 1658

Scoring table: OLIGO_NUC
Gapop 60.0, Gapext 60.0

Searched: 4708233 seqs, 24227607955 residues

Word size: 0

Total number of hits satisfying chosen parameters: 9416466

Minimum DB seq length: 0
Maximum DB seq length: 200000000

Post-processing: Listing first 45 summaries

Database:

GenEmbl:
1: gb Da:
2: gb Hcg:
3: gb In:
4: gb Om:
5: gb Ov:
6: gb Pat:
7: gb Ph:
8: gb Pl:
9: gb Pr:
10: gb Ro:
11: gb Sts:
12: gb Sy:
13: gb Un:
14: gb Vi:

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	Query Match	Length	ID	Description
1	1658	100.0	1658	4 AF331920	Canis fam
2	170	10.3	610	4 AF331919	Canis fam
3	170	10.3	610	6 BD211558	Canine an
4	170	10.3	610	6 BD211559	Canine an
5	170	10.3	610	6 AR241536	Sequence
6	170	10.3	610	6 AR241537	Sequence
7	170	10.3	610	6 AR254492	Sequence
8	170	10.3	610	6 AR254493	Sequence
9	144	8.7	402	6 BD211560	Canine an
10	144	8.7	402	6 BD211561	Canine an
11	144	8.7	402	6 AR241538	Sequence
12	144	8.7	402	6 AR241539	Sequence
13	144	8.7	402	6 AR254494	Sequence
14	144	8.7	402	6 AR254495	Sequence
15	144	8.7	405	6 AR300436	Sequence
16	144	8.7	405	6 AX083939	Sequence
17	129	7.8	343	6 AX083948	Sequence
18	129	7.8	345	6 BD211562	Canine an
19	129	7.8	345	6 BD211563	Canine an

20	129	7.8	345	6 AR241540	Sequence
21	129	7.8	345	6 AR241541	Sequence
22	129	7.8	345	6 AR254496	Sequence
23	129	7.8	345	6 AR254497	Sequence
24	129	7.8	356	4 AF091133	Canis fam
25	43	2.6	520	4 OA035038	Canis fam
26	43	2.6	520	4 OA035038	Canis fam
27	42	2.5	1140	4 OA035038	Canis fam
28	42	2.5	529	4 SSC010088	Sequence
29	41	2.5	405	4 SSC010088	Sequence
30	41	2.5	405	4 SSC010088	Sequence
31	41	2.5	405	4 SSC010088	Sequence
32	41	2.5	405	4 SSC010088	Sequence
33	39	2.4	405	4 AC091947	Sequence
34	30	1.8	354	4 AF051372	Felis cat
35	30	1.8	144571	9 BX664726	Human DNA
36	30	1.8	150124	2 AC148886	Human DNA
37	30	1.8	167036	2 AC148885	Human DNA
38	29	1.7	135520	9 BX005214	Human DNA
39	29	1.7	159900	9 AL954139	Human DNA
40	29	1.7	163795	9 BX005192	Human DNA
41	29	1.7	174366	9 AL590491	Human DNA
42	29	1.7	209112	2 AC084146	Human DNA
43	29	1.7	213042	2 AC151015	Human DNA
44	28	1.7	405	9 AF294756	Salimiri B
45	28	1.7	564	10 CPJ34588	Cavia porce

ALIGNMENTS

RESULT 1
LOCUS AF331920
DEFINITION Canis familiaris interleukin-5 gene, complete cds.
ACCESSION AF331920
VERSION AF331920.1 GI:15919182
KEYWORDS
SOURCE
ORGANISM
Canis familiaris (dog)
Canis familiaris
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Carnivora; Fissipedia; Canidae; Canis.

REFERENCE

Yang, S., Sellins, K.S., Weber, E. and McCall, C.
1 (bases 1 to 1658)

TITLE

Canine interleukin-5: molecular characterization of the gene and expression of biologically active recombinant protein

JOURNAL

J. Interferon Cytokine Res. 21 (6), 361-367 (2001)

MEDLINE

21334408
PUBMED
1140633

REFERENCE

2 (bases 1 to 1658)

AUTHORS

Yang, S. Submission
Submitted (22-DEC-2000) Immunology, Heeka Corporation, 1613
Prospect Parkway, Ft Collins, CO 80525, USA

FEATURES

Location/Qualifiers
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ORIGIN
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RESULT 2
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LOCUS AF331919
DEFINITION Canis familiaris Interleukin-5 mRNA, complete cds.
ACCESSION AF331919
VERSION AF331919.1 GI:15919180
KEYWORDS
SOURCE
ORGANISM
Canis familiaris (dog)
Eukaryota; Metazoa; Chordata; Cranialata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Carnivora; Fissipedia; Canidae; Canis.
REFERENCE
1 (bases 1 to 610)
Yang,S., Sellins,K.S., Weber,E. and McCall,C.
Canine interleukin-5: molecular characterization of the gene and
expression of biologically active recombinant protein
J. Interferon Cytokine Res. 21 (6), 361-367 (2001)
JOURNAL
MEDLINE
PUBMED
1140633
2 (bases 1 to 610)
Yang,S.
Direct Submission
Submitted (22-DEC-2000) Immunology, Heeka Corporation, 1613
Prospect Parkway, Ft Collins, CO 80525, USA
LOCATION/Qualifiers
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3' UTR
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QY 61 TTGGGGCTGCCTATGTTTCTGCTTGTCTAGAAAATCCCATGAATAGACTGTGGCAG 120

Db 63 TTGGGGCTGCCTATGTTTCTGCTTGTCTAGAAAATCCCATGAATAGACTGTGGCAG 122

QY 121 AGACCTTGACACTGCTCTCCACTCATCGAATTGGCTGATAGGCGATGGG 170

Db 123 AGACCTTGACACTGCTCTCCACTCATCGAATTGGCTGATAGGCGATGGG 172

RESULT 3	BD211558	LOCUS	DEFINITION
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			Canine and feline immunoregulatory proteins, nucleic acid molecules and method of using the same.

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LOCUS	BD211559/c				
DEFINITION	Canine and feline immunoregulatory proteins, nucleic acid molecules and method of using the same.				
ACCESSION	BD211559				
VERSION	BD211559.1	GI:33021329			
KEYWORDS	JP 2002516104-A/65.				
SOURCE	Canis familiaris (dog)				
ORGANISM	Canis familiaris				
	Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Carnivora; Fissipedia; Canidae; Canis.				
REFERENCE	1 (bases 1 to 610)				
AUTHORS	Sim,G., Yang,S., Dreitz,M.J. and Wonderling,R.S.				
TITLE	Canine and feline immunoregulatory proteins, nucleic acid molecules and method of using the same				
JOURNAL	Patent: JP 2002516104-A 65 04-JUN-2002;				
COMMENT	HESKA CORP				
	OS Canis familiaris (dog)				

FEATURES
source

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Qy	61	TTGGGGCTGACCTATGTTTCTGCTTGGCTGTAGAAATCCATGATAGACTGTGTGGAG			120
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Qy 121 AGACCTTGACACCTGCTCTCCACTCATCGAAGCTTGCGTGATAGCGGATGG 170
Db 488 AGACCTTGACACCTGCTCTCCACTCATCGAAGCTTGCGTGATAGCGGATGG 439

RESULT 5

AR241536 610 bp DNA linear PAT 20-DEC-2002
LOCUS AR241536
DEFINITION Sequence 80 from patent US 6471957.
ACCESSION AR241536
VERSION AR241536.1 GI:27287245
KEYWORDS
SOURCE
ORGANISM
REFERENCE
AUTHORS
TITLE
JOURNAL
FEATURES
source

1 (bases 1 to 610)
Sim.G.-K., Yang,S., Dreitz,M.J. and Wonderling,R.S.
Canine IL-4 immunoregulatory proteins and uses thereof
Patent: US 6471957-A 80-29-OCT-2002;
Location/Qualifiers
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ORIGIN

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LOCUS AR241537
DEFINITION Sequence 82 from patent US 6471957.
ACCESSION AR241537
VERSION AR241537.1 GI:27287246
KEYWORDS
SOURCE
ORGANISM
REFERENCE
AUTHORS
TITLE
JOURNAL
FEATURES
source

1 (bases 1 to 610)
Sim.G.-K., Yang,S., Dreitz,M.J. and Wonderling,R.S.
Canine IL-4 immunoregulatory proteins and uses thereof
Patent: US 6471957-A 82-29-OCT-2002;
Location/Qualifiers
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ORIGIN

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Qy 121 AGACCTTGACACCTGCTCTCCACTCATCGAAGCTTGCGTGATAGCGGATGG 170
Db 488 AGACCTTGACACCTGCTCTCCACTCATCGAAGCTTGCGTGATAGCGGATGG 439

RESULT 7
AR254492 610 bp DNA linear PAT 20-DEC-2002
LOCUS AR254492
DEFINITION Sequence 80 from patent US 6482403.
ACCESSION AR254492
VERSION AR254492.1 GI:27303380
KEYWORDS
SOURCE
ORGANISM
REFERENCE
AUTHORS
TITLE
JOURNAL
FEATURES
source

1 (bases 1 to 610)
Sim.G.-K., Yang,S., Dreitz,M.J. and Wonderling,R.S.
Canine IL-13 immunoregulatory proteins and uses thereof
Patent: US 6482403-A 80 19-NOV-2002;
Location/Qualifiers
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ORIGIN

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Db 123 AGACCTTGACACCTGCTCTCCACTCATCGAAGCTTGCGTGATAGCGGATGG 172

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LOCUS AR254493
DEFINITION Sequence 82 from patent US 6482403.
ACCESSION AR254493
VERSION AR254493.1 GI:27303381
KEYWORDS
SOURCE
ORGANISM
REFERENCE
AUTHORS
TITLE
JOURNAL
FEATURES
source

1 (bases 1 to 610)
Sim.G.-K., Yang,S., Dreitz,M.J. and Wonderling,R.S.
Canine IL-13 immunoregulatory proteins and uses thereof
Patent: US 6482403-A 82 19-NOV-2002;
Location/Qualifiers
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ORIGIN

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Qy 61 TTGGGGCTGCTATGTTTCTGCTTCTGCTGTAAGAAATCCCATGAATAGACTGGTGGCAG 120

Db 548 TTGGGGCTGCTATGTTTCTGCTTTGCTAGAAAATCCCATGATAGACTGGTGAG 489

Qy 121 AGACCTTGACACTGCTCTCCACTGATGGAATGATGAGGATGG 170

Db 488 AGACCTTGACACTGCTCTCCACTGATGGAATGAGGATGG 439

RESULT 9
BD211560

LOCUS
DEFINITION
ACCESSION
VERSION
KEYWORDS
SOURCE
ORGANISM

BD211560 402 bp DNA linear PAT 17-JUN-2003
Canine and feline immunoregulatory proteins, nucleic acid molecules
and method of using the same.
BD211560.1 GI:33021330
JP 2002516104-A/66
Canis familiaris (dog)
Canis familiaris
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Carnivora; Fissipedia; Canidae; Canis.
1 (bases 1 to 402)
Sim.G., Yang.S., Dreitz,M.J. and Wonderling,R.S.
Canine and feline immunoregulatory proteins, nucleic acid molecules
and method of using the same
Patent: JP 2002516104-A 66 04-JUN-2002;
HESKA CORP

COMMENT
OS Canis familiaris (dog)
PN JP 2002516104-A/66
PD 04-JUN-2002
PF 28-MAY-1999 JP 2000551002
PR 29-MAY-1998 US 60/087306
PI GEKKEE SIM,SHUMIN YANG,MATTHEW J DREITZ,RAMANI S WONDERLING PC
C12N15/09,A61K31/7088,A61K38/00,A61K38/21,A61K39/00,A61K39/395,
PC A61K39/395
PC A61K45/00,A61K48/00,A61P37/02,A61P37/04,C07K14/475,C07K14/535,
PC C07K14/54,
PC C07K14/56,C07K14/705,C07K16/24,C07K16/28,C12N1/21,C12N5/10, PC
G01N33/15,
PC G01N33/50,C12N15/00,A61K37/02,A61K37/66,C12N5/00 CC Canine
and feline immunoregulatory proteins, nucleic acid CC
molecules and
CC method of using the same
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FEATURES
source

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Qy 87 GCTGTAGAAATCCCATGATAGACTGGTGCGAGAGACTTGACACTGCTCCACTCAT 146
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Qy 147 CGAAGCTGGCTGATAGGCGATGG 170
Db 121 CGAAGCTGGCTGATAGGCGATGG 144

RESULT 10
BD211561/c

LOCUS
DEFINITION

BD211561 402 bp DNA linear PAT 17-JUN-2003
Canine and feline immunoregulatory proteins, nucleic acid molecules
and method of using the same.

ACCESSION
VERSION
KEYWORDS
SOURCE
ORGANISM

BD211561
BD211561.1 GI:33021331
JP 2002516104-A/67
Canis familiaris (dog)
Canis familiaris
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Carnivora; Fissipedia; Canidae; Canis.
1 (bases 1 to 402)
Sim.G., Yang.S., Dreitz,M.J. and Wonderling,R.S.
Canine and feline immunoregulatory proteins, nucleic acid molecules
and method of using the same
Patent: JP 2002516104-A 67 04-JUN-2002;
HESKA CORP

COMMENT
OS Canis familiaris (dog)
PN JP 2002516104-A/67
PD 04-JUN-2002
PF 28-MAY-1999 JP 2000551002
PR 29-MAY-1998 US 60/087306
PI GEKKEE SIM,SHUMIN YANG,MATTHEW J DREITZ,RAMANI S WONDERLING PC
C12N15/09,A61K31/7088,A61K38/00,A61K38/21,A61K39/00,A61K39/395,
PC A61K39/395
PC A61K45/00,A61K48/00,A61P37/02,A61P37/04,C07K14/475,C07K14/535,
PC C07K14/54,
PC C07K14/56,C07K14/705,C07K16/24,C07K16/28,C12N1/21,C12N5/10, PC
G01N33/15,
PC G01N33/50,C12N15/00,A61K37/02,A61K37/66,C12N5/00 CC Canine
and feline immunoregulatory proteins, nucleic acid CC
molecules and
CC method of using the same
FH Key Location/Qualifiers
FT source 1..402
Location/Qualifiers
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FEATURES
source

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Query Match 8.7%; Score 144; DB 6; Length 402;
Best Local Similarity 100.0%; Pred. No. 5e-61;
Matches 144; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 27 ATGAGATGCTTCTGATTTGAGTTGCTAGCTCTTGCGGCTGCTATGTTTGCCTTT 86
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Qy 87 GCTGTAGAAATCCCATGATAGACTGGTGCGAGAGACTTGACACTGCTCCACTCAT 146
Db 342 GCTGTAGAAATCCCATGATAGACTGGTGCGAGAGACTTGACACTGCTCCACTCAT 283

Qy 147 CGAAGCTGGCTGATAGGCGATGG 170
Db 282 CGAAGCTGGCTGATAGGCGATGG 259

RESULT 11
AR241538

LOCUS
DEFINITION
ACCESSION
VERSION
KEYWORDS
SOURCE
ORGANISM

AR241538 402 bp DNA linear PAT 20-DEC-2002
Sequence 83 from patent US 6471957.
AR241538
AR241538.1 GI:27287247
Unknown.
Unclassified.

REFERENCE
1 (bases 1 to 402)
Sim.G., Yang.S., Dreitz,M.J. and Wonderling,R.S.
Canine IL-4 immunoregulatory proteins and uses thereof
Patent: US 6471957-A 83 29-OCT-2002;
Location/Qualifiers
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Query Match 8.7%; Score 144; DB 6; Length 402;
Best Local Similarity 100.0%; Pred. No. 5e-61;
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QY 27 ATGGAATGCTTCTGAATTTGAGTTGCTAGCTCTTGCGGCTGCTATGTTTCTGCCTTT 86
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QY 87 GCTGTAGAAAATCCCATGAATAGACTGTGCGAGAGACTTGACACTGCTCTCCACTCAT 146
DB 61 GCTGTAGAAAATCCCATGAATAGACTGTGCGAGAGACTTGACACTGCTCTCCACTCAT 120

QY 147 CGAAGCTTGCTGATAGGCGATGGG 170
DB 121 CGAAGCTTGCTGATAGGCGATGGG 144

RESULT 12
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LOCUS AR241539
DEFINITION Sequence 84 from patent US 6471957.
ACCESSION AR241539
VERSION AR241539.1 GI:27287248
KEYWORDS
SOURCE Unknown.
ORGANISM Unknown.
REFERENCE 1 (bases 1 to 402)
AUTHORS Sim,G.-K., Yang,S., Dreitz,M.J. and Wonderling,R.S.
TITLE Canine IL-4 immunoregulatory proteins and uses thereof
JOURNAL Patent: US 6471957-A 84 29-OCT-2002;
FEATURES
source 1..402
location/Qualifiers
/organism="unknown"
/mol_type="genomic DNA"

ORIGIN

Query Match 8.7%; Score 144; DB 6; Length 402;
Best Local Similarity 100.0%; Pred. No. 5e-61;
Matches 144; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 27 ATGGAATGCTTCTGAATTTGAGTTGCTAGCTCTTGCGGCTGCTATGTTTCTGCCTTT 86
DB 402 ATGGAATGCTTCTGAATTTGAGTTGCTAGCTCTTGCGGCTGCTATGTTTCTGCCTTT 343

QY 87 GCTGTAGAAAATCCCATGAATAGACTGTGCGAGAGACTTGACACTGCTCTCCACTCAT 146
DB 342 GCTGTAGAAAATCCCATGAATAGACTGTGCGAGAGACTTGACACTGCTCTCCACTCAT 283

QY 147 CGAAGCTTGCTGATAGGCGATGGG 170
DB 282 CGAAGCTTGCTGATAGGCGATGGG 259

RESULT 13
AR254494 402 bp DNA linear PAT 20-DEC-2002
LOCUS AR254494
DEFINITION Sequence 83 from patent US 6482403.
ACCESSION AR254494
VERSION AR254494.1 GI:27303382
KEYWORDS
SOURCE Unknown.
ORGANISM Unknown.
REFERENCE 1 (bases 1 to 402)
AUTHORS Sim,G.-K., Yang,S., Dreitz,M.J. and Wonderling,R.S.
TITLE Canine IL-13 immunoregulatory proteins and uses thereof
JOURNAL Patent: US 6482403-A 83 19-NOV-2002;
FEATURES
source 1..402
location/Qualifiers

ORIGIN /mol_type="genomic DNA"

Query Match 8.7%; Score 144; DB 6; Length 402;
Best Local Similarity 100.0%; Pred. No. 5e-61;
Matches 144; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 27 ATGGAATGCTTCTGAATTTGAGTTGCTAGCTCTTGCGGCTGCTATGTTTCTGCCTTT 86
DB 1 ATGGAATGCTTCTGAATTTGAGTTGCTAGCTCTTGCGGCTGCTATGTTTCTGCCTTT 60

QY 87 GCTGTAGAAAATCCCATGAATAGACTGTGCGAGAGACTTGACACTGCTCTCCACTCAT 146
DB 61 GCTGTAGAAAATCCCATGAATAGACTGTGCGAGAGACTTGACACTGCTCTCCACTCAT 120

QY 147 CGAAGCTTGCTGATAGGCGATGGG 170
DB 121 CGAAGCTTGCTGATAGGCGATGGG 144

RESULT 14
AR254495/c 402 bp DNA linear PAT 20-DEC-2002
LOCUS AR254495
DEFINITION Sequence 84 from patent US 6482403.
ACCESSION AR254495
VERSION AR254495.1 GI:27303383
KEYWORDS
SOURCE Unknown.
ORGANISM Unknown.
REFERENCE 1 (bases 1 to 402)
AUTHORS Sim,G.-K., Yang,S., Dreitz,M.J. and Wonderling,R.S.
TITLE Canine IL-13 immunoregulatory proteins and uses thereof
JOURNAL Patent: US 6482403-A 84 19-NOV-2002;
FEATURES
source 1..402
location/Qualifiers
/organism="unknown"
/mol_type="genomic DNA"

ORIGIN

Query Match 8.7%; Score 144; DB 6; Length 402;
Best Local Similarity 100.0%; Pred. No. 5e-61;
Matches 144; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 27 ATGGAATGCTTCTGAATTTGAGTTGCTAGCTCTTGCGGCTGCTATGTTTCTGCCTTT 86
DB 402 ATGGAATGCTTCTGAATTTGAGTTGCTAGCTCTTGCGGCTGCTATGTTTCTGCCTTT 343

QY 87 GCTGTAGAAAATCCCATGAATAGACTGTGCGAGAGACTTGACACTGCTCTCCACTCAT 146
DB 342 GCTGTAGAAAATCCCATGAATAGACTGTGCGAGAGACTTGACACTGCTCTCCACTCAT 283

QY 147 CGAAGCTTGCTGATAGGCGATGGG 170
DB 282 CGAAGCTTGCTGATAGGCGATGGG 259

RESULT 15
AR300436 405 bp DNA linear PAT 12-JUN-2003
LOCUS AR300436
DEFINITION Sequence 1 from patent US 6537781.
ACCESSION AR300436
VERSION AR300436.1 GI:31687875
KEYWORDS
SOURCE Unknown.
ORGANISM Unknown.
REFERENCE 1 (bases 1 to 405)
AUTHORS Guo,H., Lawton,R., Mermer,B. and Aiyappa,A.P.
TITLE Methods and compositions concerning canine Interleukin 5
JOURNAL Patent: US 6537781-A 1 25-MAR-2003;
FEATURES
location/Qualifiers

source

1. .405
/organism="unknown"
/mol_type="genomic DNA"

ORIGIN

Query Match 8.7%; Score 144; DB 6; Length 405;

Best Local Similarity 100.0%; Pred. No. 5e-61;

Matches 144; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

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QY 27 ATGAGATGCTTCTGAAATTTGAGTTTGTAGCTCTTGCGGCTGAGCTATGTTTCTGCGCTT 86
Db 1 ATGAGATGCTTCTGAAATTTGAGTTTGTAGCTCTTGCGGCTGAGCTATGTTTCTGCGCTT 60
QY 87 GCTGTAGAAAAATCCCATGATAGACTGTGTGCGAGAGACCTTGACACTGCTCTCCACTCAT 146
Db 61 GCTGTAGAAAAATCCCATGATAGACTGTGTGCGAGAGACCTTGACACTGCTCTCCACTCAT 120
QY 147 CGAAGCTTGCTGATAGGCGATGG 170
Db 121 CGAAGCTTGCTGATAGGCGATGG 144
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GenCore version 5.1.6
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OM nucleic - nucleic search, using sw model

Run on: August 8, 2005, 09:20:09 ; Search time 1111.38 seconds

(without alignments)
6831.282 Million cell updates/sec

Title: US-10-787-382-18

Perfect score: 1658
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Scoring table: OLIGO_NUC
Gapop 60.0 , Gapext 60.0

Searched: 4390206 seqs, 2959870667 residues

Word size : 0

Total number of hits satisfying chosen parameters: 8780412

Minimum DB seq length: 0

Maximum DB seq length: 2000000000

Post-processing: Listing first 45 summaries

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Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	Query Match	Length	DB ID	Description
1	170	10.3	610	3	AA255546 Canine in
2	170	10.3	610	3	AA255547 Canine in
3	144	8.7	252	4	AA255548 Canine in
4	144	8.7	402	3	AA255549 Canine in
5	144	8.7	405	4	AA255550 Canine in
6	129	7.8	345	3	AA255551 Canine in
7	129	7.8	345	3	AA255552 Canine in
8	129	7.8	345	3	AA255553 Canine in
9	129	7.8	345	3	AA255554 Canine in
10	129	7.8	345	3	AA255555 Canine in
11	129	7.8	345	3	AA255556 Canine in
12	129	7.8	345	3	AA255557 Canine in
13	129	7.8	345	3	AA255558 Canine in
14	129	7.8	345	3	AA255559 Canine in
15	129	7.8	345	3	AA255560 Canine in
16	129	7.8	345	3	AA255561 Canine in
17	129	7.8	345	3	AA255562 Canine in
18	129	7.8	345	3	AA255563 Canine in
19	129	7.8	345	3	AA255564 Canine in
20	129	7.8	345	3	AA255565 Canine in

ALIGNMENTS

21	26	1.6	3230	12	ADR12056	Ad12056 Human int
22	26	1.6	3241	3	AAA34856	Aa34856 Human ade
23	26	1.6	3241	3	AA20978	Aa20978 Human low
24	26	1.6	3241	10	AB296672	Ab296672 Human nuc
25	26	1.6	4057	3	AAA34858	Aa34858 Human ade
26	26	1.6	4057	3	AA20980	Aa20980 Human low
27	26	1.6	4057	10	AB296674	Ab296674 Human nuc
28	26	1.6	4057	11	ABD20523	Abd20523 Human pul
29	26	1.6	4057	11	ABD20522	Abd20522 Human pul
30	26	1.6	4057	11	ABD20522	Abd20522 Human pul
31	26	1.6	4057	11	ABD20522	Abd20522 Human pul
32	26	1.6	4057	11	ABD20522	Abd20522 Human pul
33	26	1.6	4057	11	ABD20522	Abd20522 Human pul
34	26	1.6	4057	11	ABD20522	Abd20522 Human pul
35	26	1.6	4057	11	ABD20522	Abd20522 Human pul
36	26	1.6	4057	11	ABD20522	Abd20522 Human pul
37	26	1.6	4057	11	ABD20522	Abd20522 Human pul
38	26	1.6	4057	11	ABD20522	Abd20522 Human pul
39	26	1.6	4057	11	ABD20522	Abd20522 Human pul
40	26	1.6	4057	11	ABD20522	Abd20522 Human pul
41	26	1.6	4057	11	ABD20522	Abd20522 Human pul
42	26	1.6	4057	11	ABD20522	Abd20522 Human pul
43	26	1.6	4057	11	ABD20522	Abd20522 Human pul
44	26	1.6	4057	11	ABD20522	Abd20522 Human pul
45	26	1.6	4057	11	ABD20522	Abd20522 Human pul

RESULT 1

AA255546 ID AA255546 standard; CDNA; 610 BP.

AA255546; 14-MAR-2000 (first entry)

Canine interleukin-5 (IL-5) CDNA.

Interleukin-5; IL-5; antibody; canine; inhibitor; immune response;

immunoregulation; tumor; cancer; autoimmune disease; vaccine; ss.

Canis familiaris.

Key Location/Qualifiers

CDS /tag= a /product= "Canine IL-5"

W09961618-A2.

02-DEC-1999.

28-MAY-1999; 99WO-US011942.

29-MAY-1998; 98US-0087306P.

(HEK-) HESKA CORP.

Slm G, Yang S, Dreitz MJ, Wonderling RS;

WPI, 2000-072623/06.

P-PSDB; AAY58219.

Nucleic acids encoding immunoregulatory proteins from cats or dogs,

useful for treating or preventing e.g. tumors or autoimmune disease.

Claim 1h, Page 223-224; 264pp; English.

Sequences AA255546-255551 represent CDNA sequences encoding canine

interleukin-5 (IL-5). The invention relates to canine IL-4, canine or

feline IL-3 ligand, canine or feline CD40, canine or feline CD154 (CD40

CC ligand), canine IL-5, canine IL-13, feline interferon-alpha (IFN-alpha)
CC and feline granulocyte macrophage colony-stimulating factor (GM-CSF), and
CC nucleotides which encode these immunoregulatory proteins. The proteins,
CC their associated nucleic acids, specific antibodies and inhibitors may be
CC used as vaccines for therapeutic or prophylactic regulation of an immune
CC response in animals (particularly cats, dogs, horses and humans). They
CC may be used to treat autoimmune or infectious diseases including
CC allergies, tumours, inflammation and graft rejection, and to increase the
CC response from a co-administered antigen. The nucleotide sequences can
CC also be used for the recombinant production of a protein, while
CC nucleotide fragments are useful as probes, as amplification primers and
CC as sources of inhibitory therapeutics (e.g., antisense oligonucleotides).
CC The proteins may be used to raise antibodies and to screen for modulators
CC of activity, while the antibodies may be used in detection, and in drug
CC targeting
CC XX

SO Sequence 610 BP; 202 A; 114 C; 139 G; 155 T; 0 U; 0 Other;
Query Match 10.3%; Score 170; DB 3; Length 610;
Best Local Similarity 100.0%; Pred. No. 8.7e-52;
Matches 170; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 AGGCAACACTGAACATTTGAGACTATGAGAAATGCTTGAATTTGAGTTGCTAGCTC 60
Db 3 AGGCAACACTGAACATTTGAGACTATGAGAAATGCTTGAATTTGAGTTGCTAGCTC 62
QY 61 TTGGGGCTGCTATGTTTCTGCTTGTCTGTAGAAAATCCCATGAATAGACTGTGGCAG 120
Db 63 TTGGGGCTGCTATGTTTCTGCTTGTCTGTAGAAAATCCCATGAATAGACTGTGGCAG 122
QY 121 AGACTTGACACGTGCTCTCCATCATGGAATTTGGCTGATAGGCGATGGG 170
Db 123 AGACTTGACACGTGCTCTCCATCATGGAATTTGGCTGATAGGCGATGGG 172

RESULT 2
AAZ55547/c
ID AAZ55547 standard; cDNA; 610 BP.
XX
AC AAZ55547;
XX
DT 14-MAR-2000 (first entry)
XX
DB Canine interleukin-5 (IL-5) cDNA complement.
XX
XX Interleukin-5; IL-5; antibody; canine; inhibitor; immune response;
XX immunoregulation; tumour; cancer; autoimmune disease; vaccine; ss.
XX OS Canis familiaris.
XX
FH Key Location/Qualifiers
FT CDS complement(178..582)
FT /*tag= a
FT /product= "Canine IL-5"
XX
XX
PN WO9961618-A2.
XX
PD 02-DEC-1999.
XX
XX
PF 28-MAY-1999; 99WO-US011942.
XX
XX 29-MAY-1998; 98US-0087306P.
XX
XX (HESK-) HESKA CORP.
XX
XX
PI Slim G, Yang S, Dreitz MJ, Wonderling RS;
XX
XX WPI, 2000-072623/06.
XX
XX P-PSDB; AAY58219.
XX
XX
XX Nucleic acids encoding immunoregulatory proteins from cats or dogs.
XX
XX PT useful for treating or preventing e.g. tumors or autoimmune disease.
XX

PS Claim 1b; Page 224-225; 264bp; English.
XX

CC Sequences AAZ55546-255551 represent cDNA sequences encoding canine
CC interleukin-5 (IL-5). The invention relates to canine IL-4, canine or
CC feline Flt-3 ligand, canine or feline CD40, canine or feline CD154 (CD40
CC ligand), canine IL-5, canine IL-13, feline interferon-alpha (IFN-alpha)
CC and feline granulocyte macrophage colony-stimulating factor (GM-CSF), and
CC nucleotides which encode these immunoregulatory proteins. The proteins,
CC their associated nucleic acids, specific antibodies and inhibitors may be
CC used as vaccines for therapeutic or prophylactic regulation of an immune
CC response in animals (particularly cats, dogs, horses and humans). They
CC may be used to treat autoimmune or infectious diseases including
CC allergies, tumours, inflammation and graft rejection, and to increase the
CC response from a co-administered antigen. The nucleotide sequences can
CC also be used for the recombinant production of a protein, while
CC nucleotide fragments are useful as probes, as amplification primers and
CC as sources of inhibitory therapeutics (e.g., antisense oligonucleotides).
CC The proteins may be used to raise antibodies and to screen for modulators
CC of activity, while the antibodies may be used in detection, and in drug
CC targeting
CC XX

SO Sequence 610 BP; 155 A; 139 C; 114 G; 202 T; 0 U; 0 Other;
Query Match 10.3%; Score 170; DB 3; Length 610;
Best Local Similarity 100.0%; Pred. No. 8.7e-52;
Matches 170; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 AGGCAACACTGAACATTTGAGACTATGAGAAATGCTTGAATTTGAGTTGCTAGCTC 60
Db 608 AGGCAACACTGAACATTTGAGACTATGAGAAATGCTTGAATTTGAGTTGCTAGCTC 549
QY 61 TTGGGGCTGCTATGTTTCTGCTTGTCTGTAGAAAATCCCATGAATAGACTGTGGCAG 120
Db 548 TTGGGGCTGCTATGTTTCTGCTTGTCTGTAGAAAATCCCATGAATAGACTGTGGCAG 489
QY 121 AGACTTGACACGTGCTCTCCATCATGGAATTTGGCTGATAGGCGATGGG 170
Db 488 AGACTTGACACGTGCTCTCCATCATGGAATTTGGCTGATAGGCGATGGG 439

RESULT 3
AAF74305
ID AAF74305 standard; DNA; 252 BP.
XX
AC AAF74305;
XX
DT 04-MAY-2001 (first entry)
XX
DB Canine interleukin-5 coding sequence #2.
XX
XX Dog; interleukin-5; IL-5; allergy; cancer; gene therapy;
XX inflammatory reaction; ds.
XX
XX OS Canis sp.
XX
XX
PN WO200111049-A2.
XX
PD 15-FEB-2001.
XX
XX
PF 09-AUG-2000; 2000WO-US021651.
XX
XX 10-AUG-1999; 99US-00371615.
XX
XX (IDEXX-) IDEXX LAB INC.
XX
XX
PI Guo H, Lawton R, Metmer B, Aliyappa AP;
XX
XX WPI, 2001-191542/19.
XX
XX P-PSDB; AAB72616.
XX
XX
XX Novel canine interleukin 5 polynucleotide and polypeptides are used for
XX
XX PT generating antibodies which are useful in treating allergies in dogs.
XX

PS Example 1; Fig 1; 48pp; English.

CC The present invention provides the protein and coding sequences of the
CC canine interleukin-5 (IL-5) protein. This can be used to treat allergies,
CC cancer and inflammatory reactions in dogs. The present sequence is one
CC version of the IL-5 coding sequence shown in the specification
XX

SO Sequence 252 BP; 69 A; 54 C; 60 G; 69 T; 0 U; 0 Other;

Query Match 8.7%; Score 144; DB 4; Length 252;

Best Local Similarity 100.0%; Pred. No. 2.5e-42;

Matches 144; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

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Oy 27 ATGAGAAATGCTTCGAAATTTGAGTTTGTAGCTCTTGAGGCGCTTGTGCTTCCCTT 86
Db 1 ATGAGAAATGCTTCGAAATTTGAGTTTGTAGCTCTTGAGGCGCTTGTGCTTCCCTT 60
Oy 87 GCTGTAGAAATCCCATGATAGACTGTGCGAGAGACCTTGACACTGCTCTCCACTCAT 146
Db 61 GCTGTAGAAATCCCATGATAGACTGTGCGAGAGACCTTGACACTGCTCTCCACTCAT 120
Oy 147 CGAACTTGCTGATAGCGCATGGG 170
Db 121 CGAACTTGCTGATAGCGCATGGG 144
```

RESULT 4

AA255548

ID AA255548 standard; cDNA; 402 BP.

XX AC AA255548;

DT 14-MAR-2000 (first entry)

DE Canine interleukin-5 (IL-5) cDNA coding region.

XX Interleukin-5; IL-5; antibody; canine; inhibitor; immune response;
KM immunoregulation; tumour; cancer; autoimmune disease; vaccine; ss.

XX OS Canis familiaris.

XX PN WO9961618-A2.

XX PD 02-DEC-1999.

XX PF 28-MAY-1999; 99WO-US011942.

XX PR 29-MAY-1998; 98US-0087306P.

XX PA (HESK-) HESKA CORP.

XX PI Sim G, Yang S, Dreitz MJ, Wonderling RS;

XX DR WPI; 2000-072623/06.

XX DR P-PSDB; AAY58219.

XX PT Nucleic acid encoding immunoregulatory proteins from cats or dogs,
XX useful for treating or preventing e.g. tumors or autoimmune disease.

XX PS Claim 1h; Page 225; 264pp; English.

XX Sequences AA255546-255551 represent cDNA sequences encoding canine
CC interleukin-5 (IL-5). The invention relates to canine IL-4, canine or
CC feline Flt-3 ligand, canine or feline CD40, canine or feline CD154 (CD40
CC ligand), canine IL-5, canine IL-13, feline interferon-alpha (IFN-alpha)
CC and feline granulocyte macrophage colony-stimulating factor (GM-CSF), and
CC nucleotides which encode these immunoregulatory proteins. The proteins,
CC their associated nucleic acids, specific antibodies and inhibitors may be
CC used as vaccines for therapeutic or prophylactic regulation of an immune
CC response in animals (particularly cats, dogs, horses and humans). They
CC may be used to treat autoimmune or infectious diseases including
CC allergies, tumours, inflammation and graft rejection, and to increase the
CC response from a co-administered antigen. The nucleotide sequences can

CC also be used for the recombinant production of a protein, while
CC nucleotide fragments are useful as probes, as amplification primers and
CC as sources of inhibitory therapeutics (e.g., antisense oligonucleotides).
CC The proteins may be used to raise antibodies and to screen for modulators
CC of activity, while the antibodies may be used in detection, and in drug
CC targeting
XX

SO Sequence 402 BP; 129 A; 79 C; 93 G; 101 T; 0 U; 0 Other;

Query Match 8.7%; Score 144; DB 3; Length 402;

Best Local Similarity 100.0%; Pred. No. 2.3e-42;

Matches 144; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

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Oy 27 ATGAGAAATGCTTCGAAATTTGAGTTTGTAGCTCTTGAGGCGCTTGTGCTTCCCTT 86
Db 1 ATGAGAAATGCTTCGAAATTTGAGTTTGTAGCTCTTGAGGCGCTTGTGCTTCCCTT 60
Oy 87 GCTGTAGAAATCCCATGATAGACTGTGCGAGAGACCTTGACACTGCTCTCCACTCAT 146
Db 61 GCTGTAGAAATCCCATGATAGACTGTGCGAGAGACCTTGACACTGCTCTCCACTCAT 120
Oy 147 CGAACTTGCTGATAGCGCATGGG 170
Db 121 CGAACTTGCTGATAGCGCATGGG 144
```

RESULT 5

AA255549/c

ID AA255549 standard; cDNA; 402 BP.

XX AC AA255549;

DT 14-MAR-2000 (first entry)

DE Canine interleukin-5 (IL-5) cDNA coding region complement.

XX Interleukin-5; IL-5; antibody; canine; inhibitor; immune response;
KM immunoregulation; tumour; cancer; autoimmune disease; vaccine; ss.

XX OS Canis familiaris.

XX PN WO9961618-A2.

XX PD 02-DEC-1999.

XX PF 28-MAY-1999; 99WO-US011942.

XX PR 29-MAY-1998; 98US-0087306P.

XX PA (HESK-) HESKA CORP.

XX PI Sim G, Yang S, Dreitz MJ, Wonderling RS;

XX DR WPI; 2000-072623/06.

XX DR P-PSDB; AAY58219.

XX PT Nucleic acid encoding immunoregulatory proteins from cats or dogs,
XX useful for treating or preventing e.g. tumors or autoimmune disease.

XX PS Claim 1h; Page 226; 264pp; English.

XX Sequences AA255546-255551 represent cDNA sequences encoding canine
CC interleukin-5 (IL-5). The invention relates to canine IL-4, canine or
CC feline Flt-3 ligand, canine or feline CD40, canine or feline CD154 (CD40
CC ligand), canine IL-5, canine IL-13, feline interferon-alpha (IFN-alpha)
CC and feline granulocyte macrophage colony-stimulating factor (GM-CSF), and
CC nucleotides which encode these immunoregulatory proteins. The proteins,
CC their associated nucleic acids, specific antibodies and inhibitors may be
CC used as vaccines for therapeutic or prophylactic regulation of an immune
CC response in animals (particularly cats, dogs, horses and humans). They
CC may be used to treat autoimmune or infectious diseases including
CC allergies, tumours, inflammation and graft rejection, and to increase the
CC response from a co-administered antigen. The nucleotide sequences can

CC also be used for the recombinant production of a protein, while
CC nucleotide fragments are useful as probes, as amplification primers and
CC as sources of inhibitory therapeutics (e.g., antisense oligonucleotides).
CC The proteins may be used to raise antibodies and to screen for modulators
CC of activity, while the antibodies may be used in detection, and in drug
CC targeting

XX Sequence 402 BP; 101 A; 93 C; 79 G; 129 T; 0 U; 0 Other;

Query Match 8.7%; Score 144; DB 3; Length 402;
Best Local Similarity 100.0%; Pred. No. 2,3e-42;
Matches 144; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 27 ATGAGAAATGCTTGAATTTGAGTTTCTAGCTCTTGAGGCTGCTATGTTTGCCTTT 86

DB 402 ATGAGAAATGCTTGAATTTGAGTTTCTAGCTCTTGAGGCTGCTATGTTTGCCTTT 343

QY 87 GCTGTAAAAATCCCAATGAGTCTGTGGCAGAGACCTTGACACTGCTCTCCACTCAT 146

DB 342 GCTGTAAAAATCCCAATGAGTCTGTGGCAGAGACCTTGACACTGCTCTCCACTCAT 283

QY 147 CGAAGTTGGCTGATAGGCGCATGGG 170

DB 282 CGAAGTTGGCTGATAGGCGCATGGG 259

RESULT 6
AAF74300
ID AAF74300 standard; DNA; 405 BP.

XX AAF74300;

XX 04-MAY-2001 (first entry)

DT 04-MAY-2001 (first entry)

XX Canine interleukin-5 coding sequence #1.

XX Dog; interleukin-5; IL-5; allergy; cancer; gene therapy;

XX Inflammatory reaction; ds.

XX Canis sp.

XX WO200111049-A2.

XX 15-FEB-2001.

XX 09-AUG-2000; 2000WO-US021651.

XX 10-AUG-1999; 99US-00371615.

XX (IDEX-) IDEX LAB INC.

XX Guo H, Lawton R, Mermer B, Aiyappa AP;

XX WPI; 2001-191542/19.

XX P-PSDB; AAB72615.

XX Novel canine interleukin 5 polynucleotide and polypeptides are used for
XX generating antibodies which are useful in treating allergies in dogs.

XX Claim 31; Page 46; 48pp; English.

XX The present invention provides the protein and coding sequences of the
XX canine interleukin-5 (IL-5) protein. This can be used to treat allergies,

XX cancer and inflammatory reactions in dogs. The present sequence is one
XX version of the IL-5 coding sequence shown in the specification

XX Sequence 405 BP; 131 A; 77 C; 94 G; 103 T; 0 U; 0 Other;

Query Match 8.7%; Score 144; DB 4; Length 405;
Best Local Similarity 100.0%; Pred. No. 2,3e-42;
Matches 144; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 27 ATGAGAAATGCTTGAATTTGAGTTTCTAGCTCTTGAGGCTGCTATGTTTGCCTTT 86

DB 1 ATGAGAAATGCTTGAATTTGAGTTTCTAGCTCTTGAGGCTGCTATGTTTGCCTTT 60

QY 87 GCTGTAAAAATCCCAATGAGTCTGTGGCAGAGACCTTGACACTGCTCTCCACTCAT 146

DB 61 GCTGTAAAAATCCCAATGAGTCTGTGGCAGAGACCTTGACACTGCTCTCCACTCAT 120

QY 147 CGAAGTTGGCTGATAGGCGCATGGG 170

DB 121 CGAAGTTGGCTGATAGGCGCATGGG 144

RESULT 7
AAZ55550
ID AAZ55550 standard; cDNA; 345 BP.

XX AAZ55550;

XX 14-MAR-2000 (first entry)

DE Canine mature interleukin-5 (IL-5) cDNA.

XX Interleukin-5; IL-5; antibody; canine; inhibitor; immune response;

XX Immunoregulation; tumour; cancer; autoimmune disease; vaccine; ss.

XX Canis familiaris.

XX WO9961618-A2.

XX 02-DEC-1999.

XX 28-MAY-1999; 99WO-US011942.

XX 29-MAY-1998; 98US-0087306P.

XX (HESK-) HESKA CORP.

XX Sim G, Yang S, Drelitz MJ, Wonderling RS;

XX WPI; 2000-072623/06.

XX P-PSDB; AAY58220.

XX Nucleic acids encoding immunoregulatory proteins from cats or dogs,
XX useful for treating or preventing e.g. tumours or autoimmune disease.

XX Claim 1b; Page 226-227; 264pp; English.

XX Sequences AAZ55546-Z55551 represent cDNA sequences encoding canine
XX interleukin-5 (IL-5). The invention relates to canine IL-4, canine or

XX feline Flt-3 ligand, canine or feline CD40, canine or feline CD134 (CD40
XX ligand), canine IL-5, canine IL-13, feline interferon- α 1 (IFN- α 1), and

XX canine granulocyte macrophage colony-stimulating factor (GM-CSF), and
XX nucleotides which encode these immunoregulatory proteins. The proteins,

XX their associated nucleic acids, specific antibodies and inhibitors may be
XX used as vaccines for therapeutic or prophylactic regulation of an immune

XX response in animals (particularly cats, dogs, horses and humans). They
XX may be used to treat autoimmune or infectious diseases including

XX allergies, tumours, inflammation and graft rejection, and to increase the
XX response from a co-administered antigen. The nucleotide sequences can

XX also be used for the recombinant production of a protein, while
XX nucleotide fragments are useful as probes, as amplification primers and

XX as sources of inhibitory therapeutics (e.g., antisense oligonucleotides).
XX The proteins may be used to raise antibodies and to screen for modulators

XX of activity, while the antibodies may be used in detection, and in drug
XX targeting

XX Sequence 345 BP; 120 A; 68 C; 78 G; 79 T; 0 U; 0 Other;

Query Match 7.8%; Score 129; DB 3; Length 345;
Best Local Similarity 100.0%; Pred. No. 6,3e-37;
Matches 129; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1276 CACCAACTGTGATTAAGAAATTTTCAGGGATAGACACATTGAAGAACCAACTGCC 1335

```

Db      121  CACCAACTGTGCATTAAAGAAAGTTTTCAGGGTATAGACACATTGAGAAACCAACTGCGC 180
Oy      1336 CACGGGAGAGCTGTGGATTAACCTATTCGAAACCTTGTCTTTAATTAAGAAACACATAGAG 1335
Db      181  CACGGGAGAGCTGTGGATTAACCTATTCGAAACCTTGTCTTTAATTAAGAAACACATAGAG 240
Oy      1396 CGCCAAAA 1404
Db      241  CGCCAAAA 249

RESULT 8
AA25551/c
ID  AA25551 standard; cDNA; 345 BP.
AC  AA25551;
XX
XX  14-MAR-2000 (first entry)
DT
XX
DE  Canine mature interleukin-5 (IL-5) cDNA complement.
XX
XX  Interleukin-5; IL-5; antibody; canine; inhibitor; immune response;
KM  immunoregulation; tumour; cancer; autoimmune disease; vaccine; ss.
XX
XX  Canis familiaris.
OS
XX  WO9961618-A2.
PN
XX  02-DEC-1999.
PD
XX
XX  28-MAY-1999; 99WO-US011942.
PF
XX  29-MAY-1998; 98US-0087306P.
PR
XX  (HESK-) HESKA CORP.
PA
XX
XX  Slim G, Yang S, Dreitz MJ, Wonderling RS;
PI
XX  WPI; 2000-072623/06.
DR
XX  P-PSDB; AAY58220.
DR
XX
PT  Nucleic acid encoding immunoregulatory proteins from cats or dogs.
XX  useful for treating or preventing e.g. tumors or autoimmune disease.
XX
XX  Claim 1b; Page 228; 264pp; English.
XX
XX  Sequences AA255546-255551 represent cDNA sequences encoding canine
XX  interleukin-5 (IL-5). The invention relates to canine IL-4, canine or
XX  feline Flt-3 ligand, canine or feline CD40, canine or feline CD154 (CD40
XX  ligand), canine IL-5, canine IL-13, feline interferon-alpha (IFN-alpha)
XX  and feline granulocyte macrophage colony-stimulating factor (GM-CSF), and
XX  nucleotides which encode these immunoregulatory proteins. The proteins,
XX  and their associated nucleic acids, specific antibodies and inhibitors may be
XX  used as vaccines for therapeutic or prophylactic regulation of an immune
XX  response in animals (particularly cats, dogs, horses and humans). They
XX  may be used to treat autoimmune or infectious diseases including
XX  allergies, tumours, inflammation and graft rejection, and to increase the
XX  response from a co-administered antigen. The nucleotide sequences can
XX  also be used for the recombinant production of a protein, while
XX  nucleotide fragments are useful as probes, as amplification primers and
XX  as sources of inhibitory therapeutics (e.g., antisense oligonucleotides).
XX  The proteins may be used to raise antibodies and to screen for modulators
XX  of activity, while the antibodies may be used in detection, and in drug
XX  targeting
XX
XX  Sequence 345 BP; 79 A; 78 C; 68 G; 120 T; 0 U; 0 Other;
SQ
Query Match 7.8%; Score 129; DB 3; Length 345;
Best Local Similarity 100.0%; Pred. No. 6.3e-37;
Matches 129; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
Oy 1276 CACCAACTGTGCATTAAAGAAAGTTTTCAGGGTATAGACACATTGAGAAACCAACTGCGC 1335

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Db      225  CACCAACTGTGCATTAAAGAAAGTTTTCAGGGTATAGACACATTGAGAAACCAACTGCGC 166
Oy      1336 CACGGGAGAGCTGTGGATTAACCTATTCGAAACCTTGTCTTTAATTAAGAAACACATAGAG 1335
Db      165  CACGGGAGAGCTGTGGATTAACCTATTCGAAACCTTGTCTTTAATTAAGAAACACATAGAG 106
Oy      1396 CGCCAAAA 1404
Db      105  CGCCAAAA 97

RESULT 9
AAF74306
ID  AAF74306 standard; DNA; 393 BP.
AC  AAF74306;
XX
XX  04-MAY-2001 (first entry)
DT
XX
DE  Canine interleukin-5 coding sequence #3.
XX
XX  Dog; interleukin-5; IL-5; allergy; cancer; gene therapy;
KM  inflammatory reaction; ds.
XX
XX  Canis sp.
OS
XX  WO200111049-A2.
PN
XX  15-FEB-2001.
PD
XX
XX  09-AUG-2000; 2000WO-US021651.
PF
XX  10-AUG-1999; 99US-00371615.
PR
XX  (IDEX-) IDEXX LAB INC.
PA
XX
XX  Guo H, Lawton R, Mermer B, Aiyappa AP;
PI
XX  WPI; 2001-191542/19.
DR
XX
XX  Novel canine interleukin 5 polynucleotide and polypeptides are used for
XX  generating antibodies which are useful in treating allergies in dogs.
XX
XX  Claim 1; Page 35; 48pp; English.
XX
XX  The present invention provides the protein and coding sequences of the
XX  canine interleukin-5 (IL-5) protein. This can be used to treat allergies,
XX  cancer and inflammatory reactions in dogs. The present sequence is one
XX  version of the IL-5 coding sequence shown in the specification
XX
XX  Sequence 393 BP; 128 A; 82 C; 86 G; 97 T; 0 U; 0 Other;
SQ
Query Match 7.8%; Score 129; DB 4; Length 393;
Best Local Similarity 100.0%; Pred. No. 6.2e-37;
Matches 129; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
Oy 1276 CACCAACTGTGCATTAAAGAAAGTTTTCAGGGTATAGACACATTGAGAAACCAACTGCGC 1335
Db 76 CACCAACTGTGCATTAAAGAAAGTTTTCAGGGTATAGACACATTGAGAAACCAACTGCGC 135
Oy 1336 CACGGGAGAGCTGTGGATTAACCTATTCGAAACCTTGTCTTTAATTAAGAAACACATAGAG 1335
Db 136 CACGGGAGAGCTGTGGATTAACCTATTCGAAACCTTGTCTTTAATTAAGAAACACATAGAG 195
Oy 1396 CGCCAAAA 1404
Db 196 CGCCAAAA 204

RESULT 10
AAT50756
ID  AAT50756 standard; cDNA; 399 BP.

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XX AC AAT50756;
XX DT 17-OCT-2003 (revised)
XX DT 24-SEP-1997 (first entry)
XX DE Ovine IL-5 cDNA.
XX KW Cytokine; ovine; sheep; interleukin-5; interleukin-12; IL-5; IL-12;
XX KW livestock; cow; stress; transport; vaccine adjuvant; veterinary; cancer;
XX KW immunosuppression; allergy; reproductive system; growth; early maturity;
XX KW antibody; diagnosis; immunopotentiator;
XX KW early haematopoietic progenitor cell; cytotoxic cell; thymocyte;
XX KW secretion; IGM; IGA; bacterial endotoxin; gamma-interferon; ss.
XX OS Ovis aries.
XX PN MO9700321-A1.
XX PD 03-JAN-1997.
XX PE 14-JUN-1996; 96WO-AU000360.
XX PR 14-JUN-1995; 95AU-00003502.
XX PR 27-OCT-1995; 95AU-00006244.
XX PA (CSIR ) COMMONWEALTH SCI & IND RES ORG.
XX PI Seow H, Wood P;
XX P1 WPI: 1997-077528/07.
XX DR P-PSDB; AAM08479.
XX PT Nucleic acid encoding ovine interleukin-5 or -12 - used as vaccine
XX PT adjuvants and to treat or prevent microbial infections in livestock.
XX PS Claim 6; Page 41-42; 78pp; English.
XX CC The sequences given in AAT50755-56 encode ovine interleukin-5 (IL-5).
XX CC Ovine IL-5 or IL-12 are used to treat and/or prevent infections in
XX CC livestock (esp. cows and sheep), particularly where the animals are
XX CC stressed, e.g. during transport. IL-5 and IL-12 can also be used as
XX CC adjuvants in vaccines for veterinary use (partic. weakly immunogenic
XX CC subunit or synthetic peptide vaccines). They may also be used to treat
XX CC cancer, immunosuppression and allergy, to enhance/suppress the
XX CC reproductive system and to promote growth or early maturity. Optionally
XX CC interleukin can be delivered from constructs or delivery cells and
XX CC antibodies are useful in enzyme immunoassays for rapid diagnosis of
XX CC infection. The interleukins are immunopotentiators, especially IL-5
XX CC promotes growth of early haematopoietic progenitor cells and generation
XX CC of cytotoxic cells from thymocytes, also it stimulates production and
XX CC secretion of IGM and IGA (in synergism with bacterial endotoxin). IL-12
XX CC induces production of gamma-interferon by, and proliferation of, T and NK
XX CC cells and increases the (non-)specific cytolytic lymphocyte response. The
XX CC genetic constructs can also be used for in vitro production of IL-5 or -
XX CC 12. (Updated on 17-OCT-2003 to standardise OS field)
XX SQ Sequence 399 BP; 130 A; 77 C; 93 G; 99 T; 0 U; 0 Other;

Query March 2.64; Score 43; DB 2; Length 399;
Beet Local Similarity 100.0%; Pred. No. 7.5e-06;
Matches 43; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Ov 100 CCATGATAGACTGTGTGGCAGACAGACCTTGACACTGCTCTCCAC 142
Db 68 CCATGATAGACTGTGTGGCAGACAGACCTTGACACTGCTCTCCAC 110

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XX DT 17-OCT-2003 (revised)
XX DT 24-SEP-1997 (first entry)
XX DE Ovine IL-5 gene.
XX KW Cytokine; ovine; sheep; interleukin-5; interleukin-12; IL-5; IL-12;
XX KW livestock; cow; stress; transport; vaccine adjuvant; veterinary; cancer;
XX KW immunosuppression; allergy; reproductive system; growth; early maturity;
XX KW antibody; diagnosis; immunopotentiator;
XX KW early haematopoietic progenitor cell; cytotoxic cell; thymocyte;
XX KW secretion; IGM; IGA; bacterial endotoxin; gamma-interferon; ss.
XX OS Ovis aries.
XX FH Key Location/Qualifiers
XX FT CDS 46..444
XX FT /*tag= a
XX FT /product= "Ovine_IL-5"
XX FT 46..183
XX FT /*tag= b
XX FT /number= 1
XX FT exon 184..216
XX FT /*tag= c
XX FT /number= 2
XX FT exon 217..345
XX FT /*tag= d
XX FT /number= 3
XX FT exon 346..480
XX FT /*tag= e
XX FT /number= 4
XX PN MO9700321-A1.
XX PD 03-JAN-1997.
XX PE 14-JUN-1996; 96WO-AU000360.
XX PR 14-JUN-1995; 95AU-00003502.
XX PR 27-OCT-1995; 95AU-00006244.
XX PA (CSIR ) COMMONWEALTH SCI & IND RES ORG.
XX PI Seow H, Wood P;
XX P1 WPI: 1997-077528/07.
XX DR P-PSDB; AAM08479.
XX PT Nucleic acid encoding ovine interleukin-5 or -12 - used as vaccine
XX PT adjuvants and to treat or prevent microbial infections in livestock.
XX PS Claim 6; Page 39-40; 78pp; English.
XX CC The sequences given in AAT50755-56 encode ovine interleukin-5 (IL-5).
XX CC Ovine IL-5 or IL-12 are used to treat and/or prevent infections in
XX CC livestock (esp. cows and sheep), particularly where the animals are
XX CC stressed, e.g. during transport. IL-5 and IL-12 can also be used as
XX CC adjuvants in vaccines for veterinary use (partic. weakly immunogenic
XX CC subunit or synthetic peptide vaccines). They may also be used to treat
XX CC cancer, immunosuppression and allergy, to enhance/suppress the
XX CC reproductive system and to promote growth or early maturity. Optionally
XX CC interleukin can be delivered from constructs or delivery cells and
XX CC antibodies are useful in enzyme immunoassays for rapid diagnosis of
XX CC infection. The interleukins are immunopotentiators, especially IL-5
XX CC promotes growth of early haematopoietic progenitor cells and generation
XX CC of cytotoxic cells from thymocytes, also it stimulates production and
XX CC secretion of IGM and IGA (in synergism with bacterial endotoxin). IL-12
XX CC induces production of gamma-interferon by, and proliferation of, T and NK
XX CC cells and increases the (non-)specific cytolytic lymphocyte response. The
XX CC genetic constructs can also be used for in vitro production of IL-5 or -
XX CC 12. (Updated on 17-OCT-2003 to standardise OS field)
XX SQ Sequence 520 BP; 166 A; 99 C; 124 G; 131 T; 0 U; 0 Other;

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Query Match 2.6%; Score 43; DB 2; Length 520;
Best Local Similarity 100.0%; Pred. No. 7.2e-06;
Matches 43; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

OY 100 CCATGATAGACTGTGGCAGAGACCTTGACACTGCTCTCCAC 142
DB 113 CCATGATAGACTGTGGCAGAGACCTTGACACTGCTCTCCAC 155

RESULT 12

AAZ44265
ID AAZ44265 standard; DNA; 838 BP.

AAZ44265;

31-MAR-2000 (first entry)

Porcine IL-5 DNA.

Pig; vaccine; cysticercosis; protective antigen; CC1; CC3; CC4;
terial cysticercosis; gamma interferon; IFN-gamma; interleukin 5; IL-5; ss.

Sus scrofa.

CN1231339-A.

13-OCT-1999.

29-JAN-1999; 99CN-00113447.

29-JAN-1999; 99CN-00113447.

(UTM-) UNIV NO 2 MILITARY MEDICAL PLA.

Sun S, Dai J;

WPI; 2000-087904/08.

Nucleic acid vaccine for cysticercosis co-contracted by human and pig.

Claim 3; Page 9; 21pp; Chinese.

This invention describes a novel nucleic acid vaccine for preventing and curing human and pork cysticercosis. The invention involves the formation of a eukaryotic expression plasmid from fusion transcript expression unit consisting of three protective antigen genes (CC1, CC3 and CC4) of pig ventral cysticercus and coexpression unit of related cell factor gamma interferon (IFN-gamma) and pork interleukin 5 (IL-5) genes. The production and purification process of said nucleic acid vaccine is simple and convenient, the physical and chemical properties of the vaccine are stable, and the vaccine is easy to store and transport, and possesses effective immunological protective function for human and pig cysticercosis. This sequence represents the pig IL-5 gene used in the method of the invention

Sequence 838 BP; 280 A; 148 C; 171 G; 239 T; 0 U; 0 Other;

Query Match 2.5%; Score 41; DB 3; Length 838;
Best Local Similarity 100.0%; Pred. No. 3.5e-05;
Matches 41; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

OY 43 ATTTGAGTTTCTAGCTTTGGGGCTGCTATGTTTCTGCC 83
DB 61 ATTTGAGTTTCTAGCTTTGGGGCTGCTATGTTTCTGCC 101

RESULT 13

ABV56577/c
ID ABV56577 standard; CDNA; 357 BP.

ABV56577;

DT 17-SEP-2002 (first entry)

DE Human prostate expression marker CDNA 56568.

KM Human; prostate cancer; cytostatic; carcinogen; pharmacodynamic marker;
KW pharmacogenomic marker; gene; ss.

OS Homo sapiens.

MO200160860-A2.

23-AUG-2001.

20-FEB-2001; 2001WO-US005171.

17-FEB-2000; 2000US-0183319P.

16-MAR-2000; 2000US-0189862P.

25-MAY-2000; 2000US-0207454P.

09-JUN-2000; 2000US-0211314P.

18-JUL-2000; 2000US-0219007P.

13-DEC-2000; 2000US-0255281P.

(MILL-) MILLENNIUM PREDICTIVE MEDICINE INC.

Schlegel R, Endege WO, Monahan JB;

WPI; 2001-662795/76.

Novel isolated nucleic acid molecule associated with cancerous state of prostate cells and correlating with presence of prostate cancer, useful for detecting presence of prostate cancer, stage of prostate cancer.

Claim 1; Page 10911; 11750pp; English.

The invention relates to an isolated nucleic acid molecule (I) comprising a nucleotide sequence given in Tables 1-9 (ABV00010-ABV62213) of the specification or its complement. (I) is useful for: (a) assessing whether a patient is afflicted with prostate cancer; (b) monitoring the progression of prostate cancer in a patient; (c) assessing the efficacy of a test compound to inhibit prostate cancer in a patient; (d) assessing the efficacy of a therapy for inhibiting prostate cancer in a patient; (e) selecting a composition for inhibiting prostate cancer in a patient; (f) assessing the prostate cell carcinogenic potential of a compound; (g) determining whether prostate cancer has metastasized in a patient; (h) assessing the aggressiveness or indolence of prostate cancer in a patient; (i) is also useful as a pharmacodynamic or pharmacogenomic marker

Sequence 357 BP; 104 A; 93 C; 90 G; 69 T; 0 U; 1 Other;

Query Match 1.6%; Score 26; DB 5; Length 357;
Best Local Similarity 100.0%; Pred. No. 11;
Matches 26; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

OY 1458 TTTTCTTTTCTTTTCTTTTACAGAT 1483
DB 69 TTTTCTTTTCTTTTCTTTTACAGAT 44

RESULT 14
AAH92592
ID AAH92592 standard; DNA; 700 BP.

AAH92592;

09-OCT-2001 (first entry)

Human inflammatory bowel disease related gene fragment IGR1292a.

Human; inflammatory bowel disease; Crohn's disease; ulcerative colitis;
single nucleotide polymorphism; SNP; chromosome 19p13; paternity test;
chromosome 5q31-33; forensic test; gene therapy; ds.

OS Homo sapiens.

```

PN MO200142511-A2.
PD 14-JUN-2001.
PF 11-DEC-2000; 2000MO-US033632.
PR 10-DEC-1999; 99US-0170257P.
PR 10-APR-2000; 2000US-0196046P.
XX
PA (WHED ) WHITEHEAD INST BIOMEDICAL RES.
PA (ELLI-) ELLIPSIS BIOTHERAPEUTICS CORP.
PI Daly M, Hudson TJ, Lander ES, Rioux J, Siminovitch K;
XX
DR WPI; 2001-367874/38.
PT Testing for the presence of polymorphisms associated with inflammatory
PT bowel disease, using a hybridization assay.
XX
PS Disclosure: Page 261-262; 463pp; English.
XX
CC The present invention describes a method for detecting the presence of
CC polymorphisms associated with inflammatory bowel diseases such as
CC ulcerative colitis and Crohn's disease. The method can be used to detect
CC the presence of genetic polymorphisms associated with inflammatory bowel
CC disease and correlating their occurrence with disease states. They may be
CC used in this way for phenotypic correlations, forensics, paternity
CC testing, medicine and genetic analysis. The present sequence is a gene
CC containing a polymorphic site described in the exemplification of the
XX invention
SQ Sequence 700 BP; 216 A; 101 C; 125 G; 258 T; 0 U; 0 Other;
XX
Query Match 1.6%; Score 26; DB 4; Length 700;
Best Local Similarity 100.0%; Pred. No. 9.6;
Matches 26; Conservative 0; Mismatches 0; Indels 0; Gaps 0
QY 399 ATAAATGCTAGTAAATATGATT 424
Db 183 ATAAATGCTAGTAAATATGATT 208
.

RESULT 15
AAC84351/c
ID AAC84351 standard; DNA; 2235 BP.
XX
XX AAC84351;
AC
AC
XX
XX 19-MAR-2001 (first entry)
DT
DB Corn clone CPR951 FL cDNA sequence.
XX
XX Acquired resistance gene; Nph1; Nph2; rice; Nph2-1; Nph2-2; wheat;
KW plant pathogen; transgenic; disease resistance; corn; Npr1; ss.
XX
XX Zea mays.
OS
XX
XX Key Location/Qualifiers
XX CDS 261..1491
XX FT /*tag= a
XX FT
XX
XX MO200070069-A1.
XX
XX 23-NOV-2000.
XX
XX 12-MAY-2000; 2000MO-US013307.
XX
XX 13-MAY-1999; 99US-0133965P.
XX
XX (MONS ) MONSANTO CO.
PA
PA Bougri OV, Rommens CMT, Srivastava N, Swords KM;
XX

```

```

XX WP1: 2001-016244/02.
DR P-P5DB, AAB48093.
PT New acquired resistance genes Nph1 from rice, Oryza sativa, and Nph2-1
XX PT and Nph2-2 from wheat, Triticum aestivum, useful for producing transgenic
XX plants with increased disease resistance.
XX Example 1; Page 92; 101pp; English.
CC The invention relates to acquired resistance genes Nph1 from rice, and
CC Nph2-1 and Nph2-2 from wheat. The Nph1 and Nph2 polypeptides can be
CC expressed by standard recombinant methodology. The Nph1 and Nph2
CC polynucleotides or polypeptides can be used to enhance acquired
CC resistance in plants (e.g. wheat or rice) to control plant pathogens e.g.
CC the genes can be introduced to make transgenic plants with increased
CC disease resistance. The polynucleotides are also useful to produce probes
CC and primers useful to detect the polynucleotide(s) to identify transgenic
CC plants containing an acquired resistance gene(s) and to isolate similar
CC sequences e.g. from other species. The polypeptides can be used to make
CC antibodies useful to monitor protein production e.g. in transgenic
CC plants. The present sequence represents a corn clone CPR351 FL cDNA
CC sequence, used in the identification of acquired resistance genes from
CC rice and wheat
XX
SQ Sequence 2235 BP; 630 A; 466 C; 566 G; 573 T; 0 U; 0 Other;
Query Match 1.6%; Score 26; DB 4; Length 2235;
Best Local Similarity 100.0%; Pred. No. 7.9;
Matches 26; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
QY 1458 TTTTATTTTTTTTTTTTTTACAAAGAT 1483
DB 2196 TTTTATTTTTTTTTTTTTTACAAAGAT 2171

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OM nucleic - nucleic search, using sw model

Run on: August 8, 2005, 01:09:58 ; Search time 337.649 Seconds

(without alignments)
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Scoring table: OLIGO_NUC
Gapop 60.0 , Gapext 60.0

Searched: 1202784 seqs, 818138359 residues

Word size : 0

Total number of hits satisfying chosen parameters: 2405568

Minimum DB seq length: 0

Maximum DB seq length: 2000000000

Post-processing: Listing first 45 summaries

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3: /cgn2_6/ptodata/1/ina/6A_COMB.seq:*
4: /cgn2_6/ptodata/1/ina/6B_COMB.seq:*
5: /cgn2_6/ptodata/1/ina/PCtUS_COMB.seq:*
6: /cgn2_6/ptodata/1/ina/backfile1.seq:*

Pred. No. is the number of results predicted by chance to have a
score greater than or equal to the score of the result being printed,
and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	Query Match	Length	ID	Description
1	170	10.3	610	US-09-322-409-80	Sequence 80, Appl
2	170	10.3	610	US-09-322-409-82	Sequence 82, Appl
3	170	10.3	610	US-09-451-527-80	Sequence 80, Appl
4	170	10.3	610	US-09-451-527-82	Sequence 82, Appl
5	144	8.7	402	US-09-322-409-83	Sequence 83, Appl
6	144	8.7	402	US-09-322-409-84	Sequence 84, Appl
7	144	8.7	402	US-09-451-527-83	Sequence 83, Appl
8	144	8.7	402	US-09-451-527-84	Sequence 84, Appl
9	144	8.7	405	US-09-371-615A-1	Sequence 1, Appl
10	129	7.8	345	US-09-322-409-85	Sequence 85, Appl
11	129	7.8	345	US-09-322-409-87	Sequence 87, Appl
12	129	7.8	345	US-09-451-527-85	Sequence 85, Appl
13	129	7.8	345	US-09-451-527-87	Sequence 87, Appl
14	26	1.6	2235	US-09-569-804-20	Sequence 20, Appl
15	26	1.6	3230	US-09-280-799-78	Sequence 78, Appl
16	26	1.6	3230	5324640-1	Patent No. 5324640
17	26	1.6	3230	5324640-1	Patent No. 5324640
18	25	1.5	29485	US-09-785-381-6	Sequence 6, Appl
19	24	1.4	601	US-09-949-016-178377	Sequence 178377,
20	24	1.4	3078	US-09-248-796A-6470	Sequence 6470, Ap
21	24	1.4	3182	US-08-188-582-12	Sequence 12, Appl
22	24	1.4	3182	US-08-646-715-12	Sequence 12, Appl
23	24	1.4	5239	US-09-949-016-15980	Sequence 14980, A
24	24	1.4	106256	US-09-949-016-16858	Sequence 16858, A
25	24	1.4	152524	US-09-949-016-12683	Sequence 12683, A
26	24	1.4	152524	US-09-949-016-11194	Sequence 11194, A
27	23	1.4	40	US-09-306-290-11	Sequence 11, Appl

C 28	23	1.4	329	4	US-09-640-211A-1702	Sequence 1702, Ap
C 29	23	1.4	442	3	US-09-372-422A-35	Sequence 35, Appl
C 30	23	1.4	601	4	US-09-949-016-55697	Sequence 55697, A
C 31	23	1.4	601	4	US-09-949-016-57672	Sequence 57672, A
C 32	23	1.4	601	4	US-09-949-016-64595	Sequence 64595, A
C 33	23	1.4	601	4	US-09-949-016-65659	Sequence 65659, A
C 34	23	1.4	601	4	US-09-949-016-149441	Sequence 149441,
C 35	23	1.4	601	4	US-09-949-016-165661	Sequence 165661,
C 36	23	1.4	601	4	US-09-949-016-185111	Sequence 185111,
C 37	23	1.4	601	4	US-09-949-016-185112	Sequence 185112,
C 38	23	1.4	601	4	US-09-949-016-185113	Sequence 185113,
C 39	23	1.4	601	4	US-09-949-016-185143	Sequence 185143,
C 40	23	1.4	601	4	US-09-949-016-185144	Sequence 185144,
C 41	23	1.4	601	4	US-09-949-016-185145	Sequence 185145,
C 42	23	1.4	725	4	US-09-270-767-14375	Sequence 14375, A
C 43	23	1.4	920	4	US-09-270-767-14375	Sequence 14375, A
C 44	23	1.4	1017	3	US-08-849-751-1	Sequence 1, Appl
C 45	23	1.4	1017	3	US-09-478-816-1	Sequence 1, Appl

ALIGNMENTS

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RESULT 1
US-09-322-409-80
; Sequence 80, Application US/09322409
; Patent No. 6471957
; GENERAL INFORMATION:
; APPLICANT: Sim, Gek-Kee
; APPLICANT: Yang, Shumin
; APPLICANT: Drelitz, Matthew J.
; APPLICANT: Wonderling, Ramani S.
; TITLE OR INVENTION: CANINE AND FELINE IMMUNOREGULATORY PROTEINS, NUCLEIC
; FILE REFERENCE: IM-2-C1
; CURRENT APPLICATION NUMBER: US/09/322,409
; EARLIER FILING DATE: 1999-05-28
; EARLIER APPLICATION NUMBER: 60/087,306
; NUMBER OF SEQ ID NOS: 154
; SOFTWARE: PatentIn Ver. 2.0
; SEQ ID NO 80
; LENGTH: 610
; TYPE: DNA
; ORGANISM: Canis familiaris
; FEATURE:
; NAME/KEY: CDS
; LOCATION: (29)..(430)
US-09-322-409-80

Query Match      10.3%; Score 170; DB 4; Length 610;
Best Local Similarity 100.0%; Pred. No. 1.2e-61;
Matches 170; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Cy 1 AGGCAACACGTGACATTTGAGACTATGAGATGGAATTTGATTTGCTAGCTC 60
Db 3 AGGCAACACGTGACATTTGAGACTATGAGATGGAATTTGATTTGCTAGCTC 62
Cy 61 TTGGGGCTGCTATGTTGCTGCTTTGCTGTAGAAAATCCCATGATGAGTGGGAG 120
Db 63 TTGGGGCTGCTATGTTGCTGCTTTGCTGTAGAAAATCCCATGATGAGTGGGAG 122
Cy 121 AGACCTTGACACGTGCTTCCACTCATGGAATTGGCTGATGAGGATGGG 170
Db 123 AGACCTTGACACGTGCTTCCACTCATGGAATTGGCTGATGAGGATGGG 172

RESULT 2
US-09-322-409-82/C
; Sequence 82, Application US/09322409
; Patent No. 6471957
; GENERAL INFORMATION:
; APPLICANT: Sim, Gek-Kee
```

```

; APPLICANT: Yang, Shumin
; APPLICANT: Drelitz, Matthew J.
; APPLICANT: Wonderling, Ramani S.
; TITLE OF INVENTION: CANINE AND FELINE IMMUNOREGULATORY PROTEINS, NUCLEIC
; FILE REFERENCE: IM-2-C1
; CURRENT APPLICATION NUMBER: US/09/322,409
; EARLIER FILING DATE: 1999-05-28
; EARLIER APPLICATION NUMBER: 60/087,306
; NUMBER OF SEQ ID NOS: 154
; SOFTWARE: Patentin Ver. 2.0
; SEQ ID NO 82
; LENGTH: 610
; TYPE: DNA
; ORGANISM: Canis familiaris
US-09-322-409-82

Query Match      10.3%; Score 170; DB 4; Length 610;
Best Local Similarity 100.0%; Pred. No. 1.2e-61;
Matches 170; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 AGGCAACACTGAACTTTGAGACTATGAGAAATGCTTTGAAATTTGAGTTGCTAGCTC 60
DB 608 AGGCAACACTGAACTTTGAGACTATGAGAAATGCTTTGAAATTTGAGTTGCTAGCTC 549
QY 61 TTGGGGCTGCTATGTTCTGCTCTTTGCTGTAGAAAATCCCATGAAATAGACTGGTGCGAG 120
DB 548 TTGGGGCTGCTATGTTCTGCTCTTTGCTGTAGAAAATCCCATGAAATAGACTGGTGCGAG 489
QY 121 AGACCTTGACACGCTCTCCACCTCATGGAATTTGGCTGATAGGGGATGGG 170
DB 488 AGACCTTGACACGCTCTCCACCTCATGGAATTTGGCTGATAGGGGATGGG 439

RESULT 3
US-09-451-527-80
; Sequence 80, Application US/09451527
; Patent No. 6482403
; GENERAL INFORMATION:
; APPLICANT: Sim, Gek-Kee
; APPLICANT: Yang, Shumin
; APPLICANT: Drelitz, Matthew J.
; APPLICANT: Wonderling, Ramani S.
; TITLE OF INVENTION: CANINE AND FELINE IMMUNOREGULATORY PROTEINS, NUCLEIC
; FILE REFERENCE: IM-2-C2
; CURRENT APPLICATION NUMBER: US/09/451,527
; EARLIER FILING DATE: 1999-12-01
; EARLIER APPLICATION NUMBER: 09/322,409
; EARLIER FILING DATE: 1999-05-28
; EARLIER APPLICATION NUMBER: 60/087,306
; EARLIER FILING DATE: 1998-05-29
; NUMBER OF SEQ ID NOS: 174
; SOFTWARE: Patentin Ver. 2.0
; SEQ ID NO 80
; LENGTH: 610
; TYPE: DNA
; ORGANISM: Canis familiaris
; FEATURE:
; NAME/KEY: CDS
; LOCATION: (29)..(430)
US-09-451-527-80

Query Match      10.3%; Score 170; DB 4; Length 610;
Best Local Similarity 100.0%; Pred. No. 1.2e-61;
Matches 170; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 AGGCAACACTGAACTTTGAGACTATGAGAAATGCTTTGAAATTTGAGTTGCTAGCTC 60
DB 3 AGGCAACACTGAACTTTGAGACTATGAGAAATGCTTTGAAATTTGAGTTGCTAGCTC 62
QY 61 TTGGGGCTGCTATGTTCTGCTCTTTGCTGTAGAAAATCCCATGAAATAGACTGGTGCGAG 120
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|||||
DB 63 TTGGGGCTGCTATGTTCTGCTCTTTGCTGTAGAAAATCCCATGAAATAGACTGGTGCGAG 122
QY 121 AGACCTTGACACGCTCTCCACCTCATGGAATTTGGCTGATAGGGGATGGG 170
DB 123 AGACCTTGACACGCTCTCCACCTCATGGAATTTGGCTGATAGGGGATGGG 172

RESULT 4
US-09-451-527-82/C
; Sequence 82, Application US/09451527
; Patent No. 6482403
; GENERAL INFORMATION:
; APPLICANT: Sim, Gek-Kee
; APPLICANT: Yang, Shumin
; APPLICANT: Drelitz, Matthew J.
; APPLICANT: Wonderling, Ramani S.
; TITLE OF INVENTION: CANINE AND FELINE IMMUNOREGULATORY PROTEINS, NUCLEIC
; FILE REFERENCE: IM-2-C2
; CURRENT APPLICATION NUMBER: US/09/451,527
; EARLIER FILING DATE: 1999-12-01
; EARLIER APPLICATION NUMBER: 09/322,409
; EARLIER FILING DATE: 1999-05-28
; EARLIER APPLICATION NUMBER: 60/087,306
; EARLIER FILING DATE: 1998-05-29
; NUMBER OF SEQ ID NOS: 174
; SOFTWARE: Patentin Ver. 2.0
; SEQ ID NO 82
; LENGTH: 610
; TYPE: DNA
; ORGANISM: Canis familiaris
US-09-451-527-82

Query Match      10.3%; Score 170; DB 4; Length 610;
Best Local Similarity 100.0%; Pred. No. 1.2e-61;
Matches 170; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 AGGCAACACTGAACTTTGAGACTATGAGAAATGCTTTGAAATTTGAGTTGCTAGCTC 60
DB 608 AGGCAACACTGAACTTTGAGACTATGAGAAATGCTTTGAAATTTGAGTTGCTAGCTC 549
QY 61 TTGGGGCTGCTATGTTCTGCTCTTTGCTGTAGAAAATCCCATGAAATAGACTGGTGCGAG 120
DB 548 TTGGGGCTGCTATGTTCTGCTCTTTGCTGTAGAAAATCCCATGAAATAGACTGGTGCGAG 489
QY 121 AGACCTTGACACGCTCTCCACCTCATGGAATTTGGCTGATAGGGGATGGG 170
DB 488 AGACCTTGACACGCTCTCCACCTCATGGAATTTGGCTGATAGGGGATGGG 439

RESULT 5
US-09-322-409-83
; Sequence 83, Application US/09322409
; Patent No. 6471957
; GENERAL INFORMATION:
; APPLICANT: Sim, Gek-Kee
; APPLICANT: Yang, Shumin
; APPLICANT: Drelitz, Matthew J.
; APPLICANT: Wonderling, Ramani S.
; TITLE OF INVENTION: CANINE AND FELINE IMMUNOREGULATORY PROTEINS, NUCLEIC
; FILE REFERENCE: IM-2-C1
; CURRENT APPLICATION NUMBER: US/09/322,409
; EARLIER FILING DATE: 1999-05-28
; EARLIER APPLICATION NUMBER: 60/087,306
; EARLIER FILING DATE: 1998-05-29
; NUMBER OF SEQ ID NOS: 154
; SOFTWARE: Patentin Ver. 2.0
; SEQ ID NO 83
; LENGTH: 402
; TYPE: DNA
; ORGANISM: Canis familiaris
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US-09-322-409-83

Query Match 8.7%; Score 144; DB 4; Length 402;
Best Local Similarity 100.0%; Pred. No. 9.7e-51;
Matches 144; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 27 ATGAGAAATGCTTCTGAATTTGAGTTTCTAGCTCTTGCGGCTGCTATGTTTCTGCTTT 86
DB 1 ATGAGAAATGCTTCTGAATTTGAGTTTCTAGCTCTTGCGGCTGCTATGTTTCTGCTTT 60
QY 87 GCTGTAGAAAATCCCATGAAATAGACTGTGTGCGAGAGACTTGACACTGCTCTCCACTCAT 146
DB 61 GCTGTAGAAAATCCCATGAAATAGACTGTGTGCGAGAGACTTGACACTGCTCTCCACTCAT 120
QY 147 CGAAGCTGGCTGATAGGCGATGG 170
DB 121 CGAAGCTGGCTGATAGGCGATGG 144

RESULT 6

US-09-322-409-84/C
Sequence 84, Application US/09322409
Patent No. 6471957
GENERAL INFORMATION:
APPLICANT: Sim, Gek-Kee
APPLICANT: Yang, Shumin
APPLICANT: Dreitz, Matthew J.
TITLE OF INVENTION: CANINE AND FELINE IMMUNOREGULATORY PROTEINS, NUCLEIC
FILE REFERENCE: IM-2-C1
CURRENT APPLICATION NUMBER: US/09/322,409
EARLIER FILING DATE: 1999-05-28
EARLIER APPLICATION NUMBER: 60/087,306
NUMBER OF SEQ ID NOS: 154
SOFTWARE: PatentIn Ver. 2.0
SEQ ID NO 84
LENGTH: 402
TYPE: DNA
ORGANISM: Canis familiaris
US-09-322-409-84

Query Match 8.7%; Score 144; DB 4; Length 402;
Best Local Similarity 100.0%; Pred. No. 9.7e-51;
Matches 144; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 27 ATGAGAAATGCTTCTGAATTTGAGTTTCTAGCTCTTGCGGCTGCTATGTTTCTGCTTT 86
DB 402 ATGAGAAATGCTTCTGAATTTGAGTTTCTAGCTCTTGCGGCTGCTATGTTTCTGCTTT 343
QY 87 GCTGTAGAAAATCCCATGAAATAGACTGTGTGCGAGAGACTTGACACTGCTCTCCACTCAT 146
DB 342 GCTGTAGAAAATCCCATGAAATAGACTGTGTGCGAGAGACTTGACACTGCTCTCCACTCAT 283
QY 147 CGAAGCTGGCTGATAGGCGATGG 170
DB 282 CGAAGCTGGCTGATAGGCGATGG 259

RESULT 7

US-09-451-527-83
Sequence 83, Application US/09451527
Patent No. 6482403
GENERAL INFORMATION:
APPLICANT: Sim, Gek-Kee
APPLICANT: Yang, Shumin
APPLICANT: Dreitz, Matthew J.
TITLE OF INVENTION: CANINE AND FELINE IMMUNOREGULATORY PROTEINS, NUCLEIC
FILE REFERENCE: IM-2-C2
CURRENT APPLICATION NUMBER: US/09/451,527

QY 27 ATGAGAAATGCTTCTGAATTTGAGTTTCTAGCTCTTGCGGCTGCTATGTTTCTGCTTT 86
DB 402 ATGAGAAATGCTTCTGAATTTGAGTTTCTAGCTCTTGCGGCTGCTATGTTTCTGCTTT 343
QY 87 GCTGTAGAAAATCCCATGAAATAGACTGTGTGCGAGAGACTTGACACTGCTCTCCACTCAT 146
DB 342 GCTGTAGAAAATCCCATGAAATAGACTGTGTGCGAGAGACTTGACACTGCTCTCCACTCAT 283
QY 147 CGAAGCTGGCTGATAGGCGATGG 170
DB 282 CGAAGCTGGCTGATAGGCGATGG 259

CURRENT FILING DATE: 1999-12-01
EARLIER APPLICATION NUMBER: 09/322,409
EARLIER FILING DATE: 1999-05-28
EARLIER APPLICATION NUMBER: 60/087,306
EARLIER FILING DATE: 1998-05-29
NUMBER OF SEQ ID NOS: 174
SOFTWARE: PatentIn Ver. 2.0
SEQ ID NO 83
LENGTH: 402
TYPE: DNA
ORGANISM: Canis familiaris
US-09-451-527-83

Query Match 8.7%; Score 144; DB 4; Length 402;
Best Local Similarity 100.0%; Pred. No. 9.7e-51;
Matches 144; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 27 ATGAGAAATGCTTCTGAATTTGAGTTTCTAGCTCTTGCGGCTGCTATGTTTCTGCTTT 86
DB 1 ATGAGAAATGCTTCTGAATTTGAGTTTCTAGCTCTTGCGGCTGCTATGTTTCTGCTTT 60
QY 87 GCTGTAGAAAATCCCATGAAATAGACTGTGTGCGAGAGACTTGACACTGCTCTCCACTCAT 146
DB 61 GCTGTAGAAAATCCCATGAAATAGACTGTGTGCGAGAGACTTGACACTGCTCTCCACTCAT 120
QY 147 CGAAGCTGGCTGATAGGCGATGG 170
DB 121 CGAAGCTGGCTGATAGGCGATGG 144

RESULT 8

US-09-451-527-84/C
Sequence 84, Application US/09451527
Patent No. 6482403
GENERAL INFORMATION:
APPLICANT: Sim, Gek-Kee
APPLICANT: Yang, Shumin
APPLICANT: Dreitz, Matthew J.
TITLE OF INVENTION: CANINE AND FELINE IMMUNOREGULATORY PROTEINS, NUCLEIC
FILE REFERENCE: IM-2-C2
CURRENT APPLICATION NUMBER: US/09/451,527
EARLIER FILING DATE: 1999-12-01
EARLIER APPLICATION NUMBER: 09/322,409
EARLIER FILING DATE: 1998-05-28
EARLIER APPLICATION NUMBER: 60/087,306
NUMBER OF SEQ ID NOS: 174
SOFTWARE: PatentIn Ver. 2.0
SEQ ID NO 84
LENGTH: 402
TYPE: DNA
ORGANISM: Canis familiaris
US-09-451-527-84

Query Match 8.7%; Score 144; DB 4; Length 402;
Best Local Similarity 100.0%; Pred. No. 9.7e-51;
Matches 144; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 27 ATGAGAAATGCTTCTGAATTTGAGTTTCTAGCTCTTGCGGCTGCTATGTTTCTGCTTT 86
DB 402 ATGAGAAATGCTTCTGAATTTGAGTTTCTAGCTCTTGCGGCTGCTATGTTTCTGCTTT 343
QY 87 GCTGTAGAAAATCCCATGAAATAGACTGTGTGCGAGAGACTTGACACTGCTCTCCACTCAT 146
DB 342 GCTGTAGAAAATCCCATGAAATAGACTGTGTGCGAGAGACTTGACACTGCTCTCCACTCAT 283
QY 147 CGAAGCTGGCTGATAGGCGATGG 170
DB 282 CGAAGCTGGCTGATAGGCGATGG 259

RESULT 9
US-09-371-615A-1
; Sequence 1, Application US/09371615A
; Patent No. 6537781
; GENERAL INFORMATION:
; APPLICANT: IDEXX LABORATORIES
; TITLE OF INVENTION: METHODS AND COMPOSITIONS CONCERNING
; TITLE OF INVENTION: CANINE INTERLEUKIN 5
; FILE REFERENCE: 03604001700US00
; CURRENT APPLICATION NUMBER: US/09/371,615A
; CURRENT FILING DATE: 1999-08-10
; NUMBER OF SEQ ID NOS: 8
; SOFTWARE: FaecesEQ for Windows Version 3.0
; SEQ ID NO 1
; LENGTH: 405
; TYPE: DNA
; ORGANISM: Canis familiaris
US-09-371-615A-1

Query Match 8.7%; Score 144; DB 4; Length 405;
Best Local Similarity 100.0%; Pred. No. 9,7e-51;
Matches 144; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 27 ATGGAATGCTTCTGAAATTTGAGTTTGTACTCTTGCGGCTGCTATGTTTCTGCTTT 86
DB 1 ATGGAATGCTTCTGAAATTTGAGTTTGTACTCTTGCGGCTGCTATGTTTCTGCTTT 60
QY 87 GCTGTAGAAATCCCATGATAGACTGTGGCAGAGACCTTGACATGCTCTCCACTCAT 146
DB 61 GCTGTAGAAATCCCATGATAGACTGTGGCAGAGACCTTGACATGCTCTCCACTCAT 120
QY 147 CGAATCTGGCTGATAGCGCATGG 170
DB 121 CGAATCTGGCTGATAGCGCATGG 144

RESULT 10
US-09-322-409-85
; Sequence 85, Application US/09322409
; Patent No. 6471957
; GENERAL INFORMATION:
; APPLICANT: Sim, Gek-Kee
; APPLICANT: Yang, Shumin
; APPLICANT: Drelitz, Matthew J.
; APPLICANT: Wonderling, Ramani S.
; TITLE OF INVENTION: CANINE AND FELINE IMMUNOREGULATORY PROTEINS, NUCLEIC
; TITLE OF INVENTION: ACID MOLECULES, AND USES THEREOF
; FILE REFERENCE: IM-2-C1
; CURRENT APPLICATION NUMBER: US/09/322,409
; CURRENT FILING DATE: 1999-05-28
; EARLIER APPLICATION NUMBER: 60/087,306
; EARLIER FILING DATE: 1998-05-29
; NUMBER OF SEQ ID NOS: 154
; SOFTWARE: PatentIn Ver. 2.0
; SEQ ID NO 85
; LENGTH: 345
; TYPE: DNA
; ORGANISM: Canis familiaris
; FEATURE:
; NAME/KEY: CDS
; LOCATION: (1)..(345)
US-09-322-409-85

Query Match 7.8%; Score 129; DB 4; Length 345;
Best Local Similarity 100.0%; Pred. No. 1,9e-44;
Matches 129; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1276 CACCACTGTGCATTAAAGAGTTTTCAGGCTATAGACACATTGAAGAACCAACTGCC 1335
DB 121 CACCACTGTGCATTAAAGAGTTTTCAGGCTATAGACACATTGAAGAACCAACTGCC 180
QY 1336 CACGGGAGGCTGTGATTAACCTATTCAAAACCTTGTCTTTAATTAAGAACACATGAG 1395

DB 181 CACGGGAGGCTGTGATTAACCTATTCAAAACCTTGTCTTTAATTAAGAACACATGAG 240
QY 1396 CGCCAAAA 1404
DB 241 CGCCAAAA 249

RESULT 11
US-09-322-409-87/c
; Sequence 87, Application US/09322409
; Patent No. 6471957
; GENERAL INFORMATION:
; APPLICANT: Sim, Gek-Kee
; APPLICANT: Yang, Shumin
; APPLICANT: Drelitz, Matthew J.
; APPLICANT: Wonderling, Ramani S.
; TITLE OF INVENTION: CANINE AND FELINE IMMUNOREGULATORY PROTEINS, NUCLEIC
; TITLE OF INVENTION: ACID MOLECULES, AND USES THEREOF
; FILE REFERENCE: IM-2-C1
; CURRENT APPLICATION NUMBER: US/09/322,409
; CURRENT FILING DATE: 1999-05-28
; EARLIER APPLICATION NUMBER: 60/087,306
; EARLIER FILING DATE: 1998-05-29
; NUMBER OF SEQ ID NOS: 154
; SOFTWARE: PatentIn Ver. 2.0
; SEQ ID NO 87
; LENGTH: 345
; TYPE: DNA
; ORGANISM: Canis familiaris
US-09-322-409-87

Query Match 7.8%; Score 129; DB 4; Length 345;
Best Local Similarity 100.0%; Pred. No. 1,9e-44;
Matches 129; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1276 CACCACTGTGCATTAAAGAGTTTTCAGGCTATAGACACATTGAAGAACCAACTGCC 1335
DB 225 CACCACTGTGCATTAAAGAGTTTTCAGGCTATAGACACATTGAAGAACCAACTGCC 166
QY 1336 CACGGGAGGCTGTGATTAACCTATTCAAAACCTTGTCTTTAATTAAGAACACATGAG 1395
DB 165 CACGGGAGGCTGTGATTAACCTATTCAAAACCTTGTCTTTAATTAAGAACACATGAG 106
QY 1396 CGCCAAAA 1404
DB 105 CGCCAAAA 97

RESULT 12
US-09-451-527-85
; Sequence 85, Application US/09451527
; Patent No. 6482403
; GENERAL INFORMATION:
; APPLICANT: Sim, Gek-Kee
; APPLICANT: Yang, Shumin
; APPLICANT: Drelitz, Matthew J.
; APPLICANT: Wonderling, Ramani S.
; TITLE OF INVENTION: CANINE AND FELINE IMMUNOREGULATORY PROTEINS, NUCLEIC
; TITLE OF INVENTION: ACID MOLECULES, AND USES THEREOF
; FILE REFERENCE: IM-2-C2
; CURRENT APPLICATION NUMBER: US/09/451,527
; CURRENT FILING DATE: 1999-12-01
; EARLIER APPLICATION NUMBER: 09/322,409
; EARLIER FILING DATE: 1999-05-28
; EARLIER APPLICATION NUMBER: 60/087,306
; EARLIER FILING DATE: 1998-05-29
; NUMBER OF SEQ ID NOS: 174
; SOFTWARE: PatentIn Ver. 2.0
; SEQ ID NO 85
; LENGTH: 345
; TYPE: DNA
; ORGANISM: Canis familiaris
; FEATURE:

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US-09-755-633-18

Query Match 100.0%; Score 1658; DB 9; Length 1658;
 Best Local Similarity 100.0%; Pred. No. 0;
 Matches 1658; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

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Qy 1 AGGAAACACTGAACTTTTCAGAGCTATGAGATGCTTCTGAATTTGAGTTTCTACCTC 60
Db 1 AGGAAACACTGAACTTTTCAGAGCTATGAGATGCTTCTGAATTTGAGTTTCTACCTC 60
Qy 61 TTGGGGCTGCTATGTTTCTGCTCTTGTGCTGAGAAAATCCCATTAATAGACTGGTGGCAG 120
Db 61 TTGGGGCTGCTATGTTTCTGCTCTTGTGCTGAGAAAATCCCATTAATAGACTGGTGGCAG 120
Qy 121 AGACCTTGACACTGCTCTCCACCTCATCGAACTTGCTGATAGGCGATGGGTAATTTTCT 180
Db 121 AGACCTTGACACTGCTCTCCACCTCATCGAACTTGCTGATAGGCGATGGGTAATTTTCT 180
Qy 181 TTTTGATTTCCACAGTCTTTTAAATGCAATGGGTAAATTGGTGGTGGCTAGTTTAAA 240
Db 181 TTTTGATTTCCACAGTCTTTTAAATGCAATGGGTAAATTGGTGGTGGCTAGTTTAAA 240
Qy 241 GATCCATTATCAATAATGAGTAATGAGTTTAAATTAATTAATGAGTAATCAATGTTAC 300
Db 241 GATCCATTATCAATAATGAGTAATGAGTTTAAATTAATTAATGAGTAATCAATGTTAC 300
Qy 301 TCAGAAAGATTTATAATTAAGTTAAGAACTTTACATACATTAATTAATTAATGATTTTC 360
Db 301 TCAGAAAGATTTATAATTAAGTTAAGAACTTTACATACATTAATTAATTAATGATTTTC 360
Qy 361 CTTTCTTTTTCAGAACTGATGATTTCTTCTCTCGAAAATTAATAATGTAAGTTAAATTA 420
Db 361 CTTTCTTTTTCAGAACTGATGATTTCTTCTCTCGAAAATTAATAATGTAAGTTAAATTA 420
Qy 421 GATTGTAATAAATGATTAATGATGATGATGATGATGATGATGATGATGATGATGATGAT 480
Db 421 GATTGTAATAAATGATTAATGATGATGATGATGATGATGATGATGATGATGATGATGAT 480
Qy 481 CATTGGAGATGATTAATTAATTAATTAATTAATTAATTAATTAATTAATTAATTAATG 540
Db 481 CATTGGAGATGATTAATTAATTAATTAATTAATTAATTAATTAATTAATTAATTAATG 540
Qy 541 TTATGAATATTAAGAAATGCTGTAAGAAATGCTGTAAGAAATGCTGTAAGAAATGCTGTA 600
Db 541 TTATGAATATTAAGAAATGCTGTAAGAAATGCTGTAAGAAATGCTGTAAGAAATGCTGTA 600
Qy 601 CAAGTGATCAGGCTTTTGTGATGATGATGATGATGATGATGATGATGATGATGATGATG 660
Db 601 CAAGTGATCAGGCTTTTGTGATGATGATGATGATGATGATGATGATGATGATGATGATG 660
Qy 661 GGCATTTCTTCCAAAGAAATTCATTTGGTTCAGAGATGATGATGATGATGATGATGATG 720
Db 661 GGCATTTCTTCCAAAGAAATTCATTTGGTTCAGAGATGATGATGATGATGATGATGATG 720
Qy 721 TCTGCTGCTGCTTCTCTCACTCAAGTTTCTGAAAGTACAGCACTTGGGGTTAT 780
Db 721 TCTGCTGCTGCTTCTCTCACTCAAGTTTCTGAAAGTACAGCACTTGGGGTTAT 780
Qy 781 ATTTTGAATATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGAT 840
Db 781 ATTTTGAATATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGAT 840
Qy 841 ACTTCACATATTAATTAATTAATTAATTAATTAATTAATTAATTAATTAATTAATTAAT 900
Db 841 ACTTCACATATTAATTAATTAATTAATTAATTAATTAATTAATTAATTAATTAATTAAT 900
Qy 901 ATGCTCATTTAAATGTTAAATGTTAAATGTTAAATGTTAAATGTTAAATGTTAAATGTT 960
Db 901 ATGCTCATTTAAATGTTAAATGTTAAATGTTAAATGTTAAATGTTAAATGTTAAATGTT 960
Qy 961 GCTGAGACTATACAGAGAAATTTCTGAGGTGAGTAAATCAGTAAAGGAGTTGTTATAC 1020
Db 961 GCTGAGACTATACAGAGAAATTTCTGAGGTGAGTAAATCAGTAAAGGAGTTGTTATAC 1020

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Qy 1021 CTCGTAGCATTTATTTTTCATTATATCATTTTATATCATTTTATACATTTCTCAGT 1080
Db 1021 CTCGTAGCATTTATTTTTCATTATATCATTTTATATCATTTTATACATTTCTCAGT 1080
Qy 1081 AATTATATTAACATCATTTTCTTATGTTAATTTATGTTATGTTATGTTATGTTATGTTAT 1140
Db 1081 AATTATATTAACATCATTTTCTTATGTTAATTTATGTTATGTTATGTTATGTTATGTTAT 1140
Qy 1141 TGGAAAGACACAGTAAATTAATGTTGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGG 1200
Db 1141 TGGAAAGACACAGTAAATTAATGTTGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGG 1200
Qy 1201 AAAGTCACTTTTGTGAGCCAAATTTTATGCTTTGTTTGTGATGATTAATTTTAAA 1260
Db 1201 AAAGTCACTTTTGTGAGCCAAATTTTATGCTTTGTTTGTGATGATTAATTTTAAA 1260
Qy 1261 ATCTTCTCATTTTACGACCACTGCTGATTAAGAAATTTTCAAGGTATGACACTTG 1320
Db 1261 ATCTTCTCATTTTACGACCACTGCTGATTAAGAAATTTTCAAGGTATGACACTTG 1320
Qy 1321 AAGAACCAACTGCGCCACGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGG 1380
Db 1321 AAGAACCAACTGCGCCACGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGG 1380
Qy 1381 AAGAACCAACTGAGCGCCAAAGAAATTAAGTTAAAGACATTTGGCAAAACTTAAGTAT 1440
Db 1381 AAGAACCAACTGAGCGCCAAAGAAATTAAGTTAAAGACATTTGGCAAAACTTAAGTAT 1440
Qy 1441 TTGCTGACTCTGCTGTTTCTTTTCTTTTCTTTTCTTTTCTTTTCTTTTCTTTTCTTT 1500
Db 1441 TTGCTGACTCTGCTGTTTCTTTTCTTTTCTTTTCTTTTCTTTTCTTTTCTTTTCTTT 1500
Qy 1501 ATCTCTCTGTTCTTTTAAACAGAAAGGATGTCAGAGAAAGATGAGAGTGAACAAAGTT 1560
Db 1501 ATCTCTCTGTTCTTTTAAACAGAAAGGATGTCAGAGAAAGATGAGAGTGAACAAAGTT 1560
Qy 1561 CTTAGACTACCTGCAAGTATTTCTTGGTGTAAATTAACACGAGTGCACCGGAAAGTTG 1620
Db 1561 CTTAGACTACCTGCAAGTATTTCTTGGTGTAAATTAACACGAGTGCACCGGAAAGTTG 1620
Qy 1621 AGAACCAACCGGCTTATTTGATGAGAAAGATTTTGAGAG 1658
Db 1621 AGAACCAACCGGCTTATTTGATGAGAAAGATTTTGAGAG 1658

```

RESULT 2
 US-10-787-382-18
 ; Sequence 18; Application US/10787382
 ; Publication No. US20040191868A1
 ; GENERAL INFORMATION:
 ; APPLICANT: Yang, Shumin
 ; APPLICANT: McCall, Catherine A.
 ; APPLICANT: Weber, Eric R.
 ; TITLE OF INVENTION: CANINE AND FELINE IMMUNOREGULATORY PROTEINS, NUCLEIC
 ; FILE REFERENCE: IM-2-C1-C1
 ; CURRENT APPLICATION NUMBER: US/10/787,382
 ; PRIOR FILING DATE: 2004-02-24
 ; PRIOR APPLICATION NUMBER: US/09/755,633
 ; PRIOR FILING DATE: 2001-01-05
 ; PRIOR APPLICATION NUMBER: 09/322,409
 ; PRIOR FILING DATE: 1999-05-28
 ; PRIOR APPLICATION NUMBER: 60/087,306
 ; PRIOR FILING DATE: 1998-05-29
 ; NUMBER OF SEQ ID NOS: 21
 ; SOFTWARE: PatentIn Ver. 2.1
 ; SEQ ID NO 18
 ; LENGTH: 1658
 ; TYPE: DNA
 ; ORGANISM: Canis familiaris
 ; FEATURE:
 ; NAME/KEY: Intron

LOCATION: (171)..(373)
FEATURE:
NAME/KEY: Intron
LOCATION: (407)..(1275)
FEATURE:
NAME/KEY: Intron
LOCATION: (1405)..(1522)
US-10-787-382-18

Query Match 100.0%; Score 1658; DB 19; Length 1658;
Best Local Similarity 100.0%; Pred. No. 0;
Matches 1658; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 AGGCAACACCTGAACTTTGAGAGTCTGTAATTTGAGTTGCTACCTC 60
DB 1 AGGCAACACCTGAACTTTGAGAGTCTGTAATTTGAGTTGCTACCTC 60
QY 61 TTGGGGCTGCTATGTTCTGCTTTGCTGTAAGAAATCCCATGAATGAGCTGTCAG 120
DB 61 TTGGGGCTGCTATGTTCTGCTTTGCTGTAAGAAATCCCATGAATGAGCTGTCAG 120
QY 121 AGACCTGACACGCTCTCCATGGAATTTGGCTGATAGGGGATGGGTATTTTCT 180
DB 121 AGACCTGACACGCTCTCCATGGAATTTGGCTGATAGGGGATGGGTATTTTCT 180
QY 181 TTTTGAATTCCTACAGTCTTTTAAATGCAATGGGTAATTTGATTTTAAA 240
DB 181 TTTTGAATTCCTACAGTCTTTTAAATGCAATGGGTAATTTGATTTTAAA 240
QY 241 GATTCATTTATCAATTAAGTAAGTAAGTGTAAATTAATTAATTAATTAATTA 300
DB 241 GATTCATTTATCAATTAAGTAAGTAAGTGTAAATTAATTAATTAATTAATTA 300
QY 301 TCAGAAATTAATTAATTAATTAATTAATTAATTAATTAATTAATTAATTAAT 360
DB 301 TCAGAAATTAATTAATTAATTAATTAATTAATTAATTAATTAATTAATTAAT 360
QY 361 CTTTCTTTTCAAGACCTGATGATTTCTCACTCTGAAATTAATTAATTAATTAAT 420
DB 361 CTTTCTTTTCAAGACCTGATGATTTCTCACTCTGAAATTAATTAATTAATTAAT 420
QY 421 GATTGTAATAATTAATTAATTAATTAATTAATTAATTAATTAATTAATTAAT 480
DB 421 GATTGTAATAATTAATTAATTAATTAATTAATTAATTAATTAATTAATTAAT 480
QY 481 CATTGGATGATTTAATTTAATTTAATTTAATTTAATTTAATTTAATTTAAT 540
DB 481 CATTGGATGATTTAATTTAATTTAATTTAATTTAATTTAATTTAATTTAAT 540
QY 541 TTATGAATTAATTAAGATGATGTAAGAAATGCTCAATTAATTAATTAATTAAG 600
DB 541 TTATGAATTAATTAAGATGATGTAAGAAATGCTCAATTAATTAATTAATTAAG 600
QY 601 CAAGTGATGAGGCTTTTGTGATGTTGATGTTCTCAATTAATTAATTAATTAAG 660
DB 601 CAAGTGATGAGGCTTTTGTGATGTTGATGTTCTCAATTAATTAATTAATTAAG 660
QY 661 GGCATTCCTTTCAAGAAATTAATTAATTAATTAATTAATTAATTAATTAATTA 720
DB 661 GGCATTCCTTTCAAGAAATTAATTAATTAATTAATTAATTAATTAATTAATTA 720
QY 721 TCTGTGCTGCTTTCTCACTCACTCACTTTTCTGAAAGTAATTAATTAATTAAT 780
DB 721 TCTGTGCTGCTTTCTCACTCACTCACTTTTCTGAAAGTAATTAATTAATTAAT 780
QY 781 ATTTTGAATTAATTAATTAATTAATTAATTAATTAATTAATTAATTAATTAAT 840
DB 781 ATTTTGAATTAATTAATTAATTAATTAATTAATTAATTAATTAATTAATTAAT 840
QY 841 ACTTCACATATTTAATTAATTAATTAATTAATTAATTAATTAATTAATTAATTA 900
DB 841 ACTTCACATATTTAATTAATTAATTAATTAATTAATTAATTAATTAATTAATTA 900

QY 901 ATGTCATATTAATAATGTAATAATTAATTAATTAATTAATTAATTAATTAATTA 960
DB 901 ATGTCATATTAATAATGTAATAATTAATTAATTAATTAATTAATTAATTAATTA 960
QY 961 GCTAGAACTATTAAGAGAAATTTCTGAGGTAGGTAATTAATTAATTAATTAAT 1020
DB 961 GCTAGAACTATTAAGAGAAATTTCTGAGGTAGGTAATTAATTAATTAATTAAT 1020
QY 1021 CTGTAAGCATTTATTTTATTAATTAATTAATTAATTAATTAATTAATTAATTA 1080
DB 1021 CTGTAAGCATTTATTTTATTAATTAATTAATTAATTAATTAATTAATTAATTA 1080
QY 1081 AATTATTAATAATTAATTAATTAATTAATTAATTAATTAATTAATTAATTAAT 1140
DB 1081 AATTATTAATAATTAATTAATTAATTAATTAATTAATTAATTAATTAATTAAT 1140
QY 1141 TGGAAAGACACAGTAATAATTAATTAATTAATTAATTAATTAATTAATTAAT 1200
DB 1141 TGGAAAGACACAGTAATAATTAATTAATTAATTAATTAATTAATTAATTAAT 1200
QY 1201 AAGCTCACTTTTGGACCAATTTTATGCTTTGATGAATTAATTAATTTTAAA 1260
DB 1201 AAGCTCACTTTTGGACCAATTTTATGCTTTGATGAATTAATTAATTTTAAA 1260
QY 1261 ATCTTCTCATTTAGACCAATGTCATTAAGAAATTTTTCAGGTATTAAGACAT 1320
DB 1261 ATCTTCTCATTTAGACCAATGTCATTAAGAAATTTTTCAGGTATTAAGACAT 1320
QY 1321 AAGAACCAATCTGCGGAGAGCTGTGATTAATTAATTAATTAATTAATTAATTA 1380
DB 1321 AAGAACCAATCTGCGGAGAGCTGTGATTAATTAATTAATTAATTAATTAATTA 1380
QY 1381 AAGAACCAATCTGCGGAGAGCTGTGATTAATTAATTAATTAATTAATTAATTA 1440
DB 1381 AAGAACCAATCTGCGGAGAGCTGTGATTAATTAATTAATTAATTAATTAATTA 1440
QY 1441 TTGTCTGACCTGCTGCTTTTATTTTATTTTATTAATTAATTAATTAATTAAT 1500
DB 1441 TTGTCTGACCTGCTGCTTTTATTTTATTTTATTAATTAATTAATTAATTAAT 1500
QY 1501 ATCTCTGCTGCTTTTATTAATTAATTAATTAATTAATTAATTAATTAATTAAT 1560
DB 1501 ATCTCTGCTGCTTTTATTAATTAATTAATTAATTAATTAATTAATTAATTAAT 1560
QY 1561 CTTAGACTACCTGCAATTAATTTCTGCTGTAATTAATTAATTAATTAATTAAT 1620
DB 1561 CTTAGACTACCTGCAATTAATTTCTGCTGTAATTAATTAATTAATTAATTAAT 1620
QY 1621 AGAACCAACCGCTTATTTAGTGAAGATTTTGGAGA 1658
DB 1621 AGAACCAACCGCTTATTTAGTGAAGATTTTGGAGA 1658

RESULT 3
US-09-755-633-19/c
Sequence 19, Application US/09755633
Patent No. US20020127200A1
GENERAL INFORMATION:
APPLICANT: Yang, Shumin
APPLICANT: McCall, Catherine A.
APPLICANT: Weber, Eric R.
TITLE OF INVENTION: CANINE AND FELINE IMMUNOREGULATORY PROTEINS, NUCLEIC
FILE REFERENCE: IM-2-C1-C1
CURRENT APPLICATION NUMBER: US/09/755,633
PRIOR APPLICATION NUMBER: 2001-01-05
PRIOR FILING DATE: 1999-05-28
PRIOR APPLICATION NUMBER: 60/087,306
PRIOR FILING DATE: 1998-05-29
NUMBER OF SEQ ID NOS: 21
SOFTWARE: PatentIn Ver. 2.1
SEQ ID NO 19

LENGTH: 1658
TYPE: DNA
ORGANISM: Canis familiaris
US-09-755-633-19

Query Match 80.5%; Score 1335; DB 9; Length 1658;
Best Local Similarity 99.8%; Pred. No. 0;
Matches 1625; Conservative 0; Mismatches 1; Indels 2; Gaps 2;

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QY 32 AATGCTCTGAATTTGATTTGCTAGCTCTTGAGGCTGCTATGTTCTGCTTTGCTGT 91
Db 1627 AATGCTCTGAATTTGATTTGCTAGCTCTTGAGGCTGCTATGTTCTGCTTTGCTGT 1568
QY 92 AGAAATATCCATGATATGACTGTGGGAGAGACCTTGACACTGCTCTCCACTATGCAAC 151
Db 1567 AGAAATATCCATGATATGACTGTGGGAGAGACCTTGACACTGCTCTCCACTATGCAAC 1508
QY 152 TTGGCTGATAGGCGATGGGGTAAATTTCTTTTGAATTCCTACAGTCTTTAAATGCAATGG 211
Db 1507 TTGGCTGATAGGCGATGGGGTAAATTTCTTTTGAATTCCTACAGTCTTTAAATGCAATGG 1448
QY 212 GTAATGATGATGCTGCTAGTCTTTTAAAGATCCATTAATGAATGATGATGAT 271
Db 1447 GTAATGATGATGCTGCTAGTCTTTTAAAGATCCATTAATGAATGATGATGAT 1388
QY 272 TAATATATAT -AATGGGTAACATGTTACTCAGAGAAATTAATTAAGTTATGAAAC 330
Db 1387 TAATATATAT -AATGGGTAACATGTTACTCAGAGAAATTAATTAAGTTATGAAAC 1328
QY 331 TTCAATATACATTAATAAATGATGTTCTCTCTCTTTTCAAGAACCTGATGATTCCTAC 390
Db 1327 TTCAATATACATTAATAAATGATGTTCTCTCTCTTTTCAAGAACCTGATGATTCCTAC 1268
QY 391 TCCTGAAATATAAATATGATTAATTAATGATTAATTAATGATTAATGATTAATGAT 450
Db 1267 TCCTGAAATATAAATATGATTAATTAATGATTAATTAATGATTAATGATTAATGAT 1208
QY 451 TCATATTTTAAGCTATTAAGTATCAATTAATGATGATGATGATGATGATGATGATGAT 510
Db 1207 TCATATTTTAAGCTATTAAGTATCAATTAATGATGATGATGATGATGATGATGATGAT 1148
QY 511 TTTTATATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGAT 570
Db 1147 TTTTATATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGAT 1088
QY 571 GCTCTACATATTAAGTATGATGATGATGATGATGATGATGATGATGATGATGATGAT 630
Db 1087 GCTCTACATATTAAGTATGATGATGATGATGATGATGATGATGATGATGATGATGAT 1028
QY 631 CAGTTCTCATCTCAAGAGCCTGCTGTCAGGCAATCTTTTCAAGAAATTCATATTTGG 690
Db 1027 CAGTTCTCATCTCAAGAGCCTGCTGTCAGGCAATCTTTTCAAGAAATTCATATTTGG 968
QY 691 GTCAGAGATATCTCTAGGCTCCATCACTCTGCTGCTGCTTCTCTCACTCAAGCTT 750
Db 967 GTCAGAGATATCTCTAGGCTCCATCACTCTGCTGCTGCTTCTCTCACTCAAGCTT 908
QY 751 TTTCTGAAAGTATGACAACTTGAGGCTTAATTTTGAATTAATGATGATGATGATGATGAT 810
Db 907 TTTCTGAAAGTATGACAACTTGAGGCTTAATTTTGAATTAATGATGATGATGATGATGAT 848
QY 811 AATATACAGTAAAGTCTATATTAATGATCACTTCCACATATTTAAATGATTTTAACTC 870
Db 847 AATATACAGTAAAGTCTATATTAATGATCACTTCCACATATTTAAATGATTTTAACTC 788
QY 871 TAATGATATCATATATGATGATGATGATGATGATGATGATGATGATGATGATGAT 930
Db 787 TAATGATATCATATATGATGATGATGATGATGATGATGATGATGATGATGATGAT 728
QY 931 ATCATATGCTTAATTAAGAAATTAATTAACAGTAACTAATGAGAAATTTCTGAGGTG 990
Db 727 ATCATATGCTTAATTAAGAAATTAATTAACAGTAACTAATGAGAAATTTCTGAGGTG 668
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QY 991 AGGTAATATCAGTAAGGACGTTGATTAATTAACCTGTAAGCAATTAATTTTCAATTAAT 1050
Db 667 AGGTAATATCAGTAAGGACGTTGATTAATTAACCTGTAAGCAATTAATTTTCAATTAAT 608
QY 1051 TCATTTATATCATTTTGTATGATCACTTCCAGTAATTAATTAACATCATTTACTATGTTAA 1110
Db 607 TCATTTATATCATTTTGTATGATCACTTCCAGTAATTAATTAACATCATTTACTATGTTAA 546
QY 1171 AGAAGGAACTTGTGTAAACCCCAACAAACAAAGTCTAATTTTGAACCAATTTTAT 1230
Db 487 AGAAGGAACTTGTGTAAACCCCAACAAACAAAGTCTAATTTTGAACCAATTTTAT 429
QY 1231 GCCCTGTTTGTATGATTAATTAATTTTAAATCTTCTCAATTAAGCAACAACTGTGAT 1290
Db 428 GCCCTGTTTGTATGATTAATTAATTTTAAATCTTCTCAATTAAGCAACAACTGTGAT 369
QY 1291 AAGAACTTTTTCAGGATATAGACATTTGAAGAACCAACCTGCCAGGGAGGCTGTG 1350
Db 368 AAGAACTTTTTCAGGATATAGACATTTGAAGAACCAACCTGCCAGGGAGGCTGTG 309
QY 1351 GATTAATATATCCAAACTGCTCTTTAATTAAGAAACATTAAGGCGCAAAAGTAAAT 1410
Db 308 GATTAATATATCCAAACTGCTCTTTAATTAAGAAACATTAAGGCGCAAAAGTAAAT 249
QY 1411 TAAAGACATTTGGCAAAAATTAAGTATATTTGCTGAGCTGTGCTGTTTCTTTTCTTTT 1470
Db 248 TAAAGACATTTGGCAAAAATTAAGTATATTTGCTGAGCTGTGCTGTTTCTTTTCTTTT 189
QY 1471 TTTTTCAGAAATATGACAGTTTCTCAATATCTCTGCTGTTCTTTTACAGAAAGGTG 1530
Db 188 TTTTTCAGAAATATGACAGTTTCTCAATATCTCTGCTGTTCTTTTACAGAAAGGTG 129
QY 1531 TGCAGAGAAAGATGAGAGATGACAAAGTCTCTAGACTACTGCAAGTATTTCTGTGT 1590
Db 128 TGCAGAGAAAGATGAGAGATGACAAAGTCTCTAGACTACTGCAAGTATTTCTGTGT 69
QY 1591 AATTAACACCGAGTGAACACCGGAAAGTTAGAAACCAACCGGCTTATTTAGTGAAGAT 1650
Db 68 AATTAACACCGAGTGAACACCGGAAAGTTAGAAACCAACCGGCTTATTTAGTGAAGAT 9
QY 1651 TTTTGAGA 1658
Db 8 TTTTGAGA 1
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RESULT 4
US-10-787-382-19/c
Sequence 19, Application US/10787382
Publication No. US20040191868A1
GENERAL INFORMATION:
APPLICANT: Yang, Shumin
APPLICANT: McCall, Catherine A.
TITLE OF INVENTION: CANINE AND FELINE IMMUNOREGULATORY PROTEINS, NUCLEIC
FILE OF INVENTION: ACID MOLECULES, AND USES THEREOF
FILE REFERENCE: IN-2-C1-C1
CURRENT APPLICATION NUMBER: US/10/787,382
CURRENT FILING DATE: 2004-02-24
PRIOR APPLICATION NUMBER: US/09/755,633
PRIOR FILING DATE: 2001-01-05
PRIOR APPLICATION NUMBER: 09/322,409
PRIOR FILING DATE: 1999-05-28
PRIOR APPLICATION NUMBER: 60/087,306
PRIOR FILING DATE: 1998-05-29
NUMBER OF SEQ ID NOS: 21
SOFTWARE: PatentIn Ver. 2.1
SEQ ID NO 19
LENGTH: 1658
TYPE: DNA

ORGANISM: Canis familiaris
US-10-787-382-19

Query Match 80.5%; Score 1335; DB 19; Length 1658;
Best Local Similarity 99.8%; Pred. No. 0;
Matches 1625; Conservative 0; Mismatches 1; Indels 2; Gaps 2;

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QY 32 AATGCTTCTGAAATTGAGTTGCTAGCTCTTGGGGCTGCTATGTTCTGCTTGTGCTGT 91
DB 1627 AATGCTTCTGAAATTGAGTTGCTAGCTCTTGGGGCTGCTATGTTCTGCTTGTGCTGT 1568
QY 92 AGAAAAATCCCATGAATGACTGGTGGCAGAGACCTTGACACTGCTCTCCACTCATGCAAC 151
DB 1567 AGAAAAATCCCATGAATGACTGGTGGCAGAGACCTTGACACTGCTCTCCACTCATGCAAC 1508
QY 152 TTGGCTGATAGGCGATGGGGTAAATTTCTTTTGAATCTACAGTCTTTAAAGCATGG 211
DB 1507 TTGGCTGATAGGCGATGGGGTAAATTTCTTTTGAATCTACAGTCTTTAAAGCATGG 1448
QY 212 GTAATTGGTGGTGGCTAGTTTAAAGATCCATTATCAATATGAAGTATGAGTGT 271
DB 1447 GTAATTGGTGGTGGCTAGTTTAAAGATCCATTATCAATATGAAGTATGAGTGT 1388
QY 272 TAATAATATAT-AATGGGTAAACATGTTACTCAGAGAAATTATATTAAGTATGAAC 330
DB 1387 TAATAATATATTAATGGGTAAACATGTTACTCAGAGAAATTATATTAAGTATGAAC 1328
QY 331 TTACAAATACATTAATAAATGAAATGTTTCTCTCTTTTCAAGAACTGATGATCCCTAC 390
DB 1327 TTACAAATACATTAATAAATGAAATGTTTCTCTCTTTTCAAGAACTGATGATCCCTAC 1268
QY 391 TCCGAAAAATAAAAATGTAAGTAAATTAATGATTAATGAATGATTAACATGATCAGTT 450
DB 1267 TCCGAAAAATAAAAATGTAAGTAAATTAATGATTAATGAATGATTAACATGATCAGTT 1208
QY 451 TCATATTTTAAGCTATAAAGTATCAGTTACATGGGATGTTAATTTATCTATTTTG 510
DB 1207 TCATATTTTAAGCTATAAAGTATCAGTTACATGGGATGTTAATTTATCTATTTTG 1148
QY 511 TTTTATATGTCGGAGATGTAATTAATGCTTATGATTAATGAATGATGTTGAAATG 570
DB 1147 TTTTATATGTCGGAGATGTAATTAATGCTTATGATTAATGAATGATGTTGAAATG 1088
QY 571 GCTCTACAAATATTAAGTAAATCCATTAAAGCAAGTGGATCGCCCTTTTGTATGTTGT 630
DB 1087 GCTCTACAAATATTAAGTAAATCCATTAAAGCAAGTGGATCGCCCTTTTGTATGTTGT 1028
QY 631 CAGTTCTCAATCTCAAAAGCCTGTCAGGCAATCTTTTCAAAAGAAATTCATATTGG 690
DB 1027 CAGTTCTCAATCTCAAAAGCCTGTCAGGCAATCTTTTCAAAAGAAATTCATATTGG 968
QY 691 GTGAGAAATCTCTGAGGCTCCATCACTCTGTCGTGGCTTTCTCACTCAATGATTT 750
DB 967 GTGAGAAATCTCTGAGGCTCCATCACTCTGTCGTGGCTTTCTCACTCAATGATTT 908
QY 751 TTTCTGAAAGTACAGCAACTTGGGGTAAATTTTGAATTAATGTCAGTACAGATGAA 810
DB 907 TTTCTGAAAGTACAGCAACTTGGGGTAAATTTTGAATTAATGTCAGTACAGATGAA 848
QY 811 AATATACAGTGAAGTCTTATATTAATAGTCACTTCCATATTTTAAATGATTTTAACTC 870
DB 847 AATATACAGTGAAGTCTTATATTAATAGTCACTTCCATATTTTAAATGATTTTAACTC 788
QY 871 TAAATGAAATCATATACATCTGAGATATGTCATGTCATATTAATGTTAAATGAT 930
DB 787 TAAATGAAATCATATACATCTGAGATATGTCATGTCATATTAATGTTAAATGAT 728
QY 931 ATCATATGCTAATATAGATTAATTAATTAACAGTAACTAATACAGGAAATTTGAGGTG 990
DB 727 ATCATATGCTAATATAGATTAATTAATTAACAGTAACTAATACAGGAAATTTGAGGTG 668
QY 991 AGTAAATCAGTAAAGCAGTTGATTAATACCTGTAAAGCATTTATTTTCAATTAATCATTT 1050
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DB 667 AGTAAATCAGTAAAGCAGTTGATTAATTAATACCTGTAAGCATTTATTTTCAATTAATCATTT 608
QY 1051 TCATTTATATCATTTTGTAAACATCTTCTAGTAAATTAATTAACATTTACTTAATGTTAA 1110
DB 607 TCATTTATATCATTTTGTAAACATCTTCTAGTAAATTAATTAACATTTACTTAATGTTAA 548
QY 1111 TTAATAGCTTAATTAAGTGGTGGTCCACCTGGAAAGACAAAGTAAATTAATTTTGGG 1170
DB 547 TTAATAGCTTAATTAAGTGGTGGTCCACCTGGAAAGACAAAGTAAATTAATTTTGGG 488
QY 1171 AGAAGGAACTTGTGTAAACCCCAAAACAAAGTCTAATCTTTTGGACCAATTTTAT 1230
DB 487 AGAAGGAACTTGTGTAAACCCCAAAACAAAGTCTAATCTTTTGGACCAATTTTAT 429
QY 1231 GCCCTGTTTGAATTAATTAATTTTAAATGTCCTCATTTAGACCAACTGTGATTT 1290
DB 428 GCCCTGTTTGAATTAATTAATTTTAAATGTCCTCATTTAGACCAACTGTGATTT 369
QY 1291 AAGAAATTTTCAAGGATATAGACATTTGAAGAACCAACCTGCCACGGGGAGCTGTG 1350
DB 368 AAGAAATTTTCAAGGATATAGACATTTGAAGAACCAACCTGCCACGGGGAGCTGTG 309
QY 1351 GATTAATATTTCCAAACCTGCTTTTAATTAAGAAACATTAAGCCCAAAAGTAACT 1410
DB 308 GATTAATATTTCCAAACCTGCTTTTAATTAAGAAACATTAAGCCCAAAAGTAACT 249
QY 1411 TAAAGACATTTGGCAAAAATTAAGTATTTGTCTGACCTGCTGTTTTTTTTTTT 1470
DB 248 TAAAGACATTTGGCAAAAATTAAGTATTTGTCTGACCTGCTGTTTTTTTTTTT 189
QY 1471 TTTTACAAATATGACAGTTTCTTAATATCTCTCTGTTCTTTTAAAGAAAGGTG 1530
DB 188 TTTTACAAATATGACAGTTTCTTAATATCTCTCTGTTCTTTTAAAGAAAGGTG 129
QY 1531 TGCAGAGAAATGAGAGATGACAAAGTCTTAAGTACTGCAATATTTCTTGGTGT 1590
DB 128 TGCAGAGAAATGAGAGATGACAAAGTCTTAAGTACTGCAATATTTCTTGGTGT 69
QY 1591 AATTAACACCGAGTGGACACCGGAAATGAGAAACCGGCTTATTTAGTGAAGAT 1650
DB 68 AATTAACACCGAGTGGACACCGGAAATGAGAAACCGGCTTATTTAGTGAAGAT 9
QY 1651 TTTGAGAA 1658
DB 8 TTTGAGAA 1
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RESULT 5

US-09-755-633-21
Sequence 21, Application US/09755633
Patent No. US20020127200A1
GENERAL INFORMATION:
APPLICANT: Yang, Shumin
APPLICANT: McCall, Catherine A.
APPLICANT: Weber, Eric R.
TITLE OF INVENTION: CANINE AND FELINE IMMUNOREGULATORY PROTEINS, NUCLEIC
FILE REFERENCE: IM-2-CI-CI
CURRENT APPLICATION NUMBER: US/09/755,633
CURRENT FILING DATE: 2001-01-05
PRIOR APPLICATION NUMBER: 09/322,409
PRIOR FILING DATE: 1999-05-28
PRIOR APPLICATION NUMBER: 60/087,306
PRIOR FILING DATE: 1998-05-29
NUMBER OF SEQ ID NOS: 21
SOFTWARE: Patentin Ver. 2.1
SEQ ID NO 21
LENGTH: 671
TYPE: DNA
ORGANISM: Canis familiaris
US-09-755-633-21

Query Match 24.5%; Score 406; DB 9; Length 671;

;; TITLE OF INVENTION: ACID MOLECULES, AND USES THEREOF
;; FILE REFERENCE: IM-2-C1-C1
;; CURRENT APPLICATION NUMBER: US/09/755,633
;; CURRENT FILING DATE: 2001-01-05
;; PRIOR APPLICATION NUMBER: 09/322,409
;; PRIOR FILING DATE: 1999-05-28
;; PRIOR APPLICATION NUMBER: 60/087,306
;; PRIOR FILING DATE: 1998-05-29
;; NUMBER OF SEQ ID NOS: 21
;; SOFTWARE: PatentIn Ver. 2.1
;; SEQ ID NO 6
;; LENGTH: 610
;; TYPE: DNA
;; ORGANISM: Canis familiaris
US-09-755-633-6

Query Match 10.3%; Score 170; DB 9; Length 610;
Best Local Similarity 100.0%; Pred. No. 6,9e-71;
Matches 170; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 AGGCAACACTGAACTTTGAGAGCTATGAGATGCTTCTGAAATTTGAGTTGCTAGCTC 60
DB 608 AGGCAACACTGAACTTTGAGAGCTATGAGATGCTTCTGAAATTTGAGTTGCTAGCTC 549
QY 61 TTGGGGCTGCTATGTTTCTGCTTTGCTGTAGAAAAATCCCATGAAATAGACTGGTGCGAG 120
DB 548 TTGGGGCTGCTATGTTTCTGCTTTGCTGTAGAAAAATCCCATGAAATAGACTGGTGCGAG 489
QY 121 AGACCTTGACACTGCTCTCCACTCATGCAACTTGGCTGATAGCGGATGGG 170
DB 488 AGACCTTGACACTGCTCTCCACTCATGCAACTTGGCTGATAGCGGATGGG 439

RESULT 9

US-10-218-654-80
;; Sequence 80, Application US/10218654
;; Publication No. US20030099609A1
;; GENERAL INFORMATION:
;; APPLICANT: Sim, Gek-Kea
;; APPLICANT: Yang, Shumin
;; APPLICANT: Dreitz, Matthew J.
;; APPLICANT: Wonderling, Ramani S.
;; TITLE OF INVENTION: CANINE AND FELINE IMMUNOREGULATORY PROTEINS, NUCLEIC
;; FILE REFERENCE: IM-2-C1
;; CURRENT APPLICATION NUMBER: US/10/218,654
;; CURRENT FILING DATE: 2002-08-13
;; PRIOR APPLICATION NUMBER: US/09/322,409
;; PRIOR FILING DATE: 1999-05-28
;; PRIOR APPLICATION NUMBER: 60/087,306
;; PRIOR FILING DATE: 1998-05-29
;; NUMBER OF SEQ ID NOS: 154
;; SOFTWARE: PatentIn Ver. 2.0
;; SEQ ID NO 80
;; LENGTH: 610
;; TYPE: DNA
;; ORGANISM: Canis familiaris
;; FEATURE:
;; NAME/KEY: CDS
;; LOCATION: (29)..(430)
US-10-218-654-80

Query Match 10.3%; Score 170; DB 14; Length 610;
Best Local Similarity 100.0%; Pred. No. 6,9e-71;
Matches 170; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 AGGCAACACTGAACTTTGAGAGCTATGAGATGCTTCTGAAATTTGAGTTGCTAGCTC 60
DB 3 AGGCAACACTGAACTTTGAGAGCTATGAGATGCTTCTGAAATTTGAGTTGCTAGCTC 62
QY 61 TTGGGGCTGCTATGTTTCTGCTTTGCTGTAGAAAAATCCCATGAAATAGACTGGTGCGAG 120
DB 63 TTGGGGCTGCTATGTTTCTGCTTTGCTGTAGAAAAATCCCATGAAATAGACTGGTGCGAG 122

QY 121 AGACCTTGACACTGCTCTCCACTCATGCAACTTGGCTGATAGCGGATGGG 170
DB 123 AGACCTTGACACTGCTCTCCACTCATGCAACTTGGCTGATAGCGGATGGG 172

RESULT 10

US-10-218-654-82/c
;; Sequence 82, Application US/10218654
;; Publication No. US20030099609A1
;; GENERAL INFORMATION:
;; APPLICANT: Sim, Gek-Kea
;; APPLICANT: Yang, Shumin
;; APPLICANT: Dreitz, Matthew J.
;; APPLICANT: Wonderling, Ramani S.
;; TITLE OF INVENTION: CANINE AND FELINE IMMUNOREGULATORY PROTEINS, NUCLEIC
;; FILE REFERENCE: IM-2-C1
;; CURRENT APPLICATION NUMBER: US/10/218,654
;; CURRENT FILING DATE: 2002-08-13
;; PRIOR APPLICATION NUMBER: US/09/322,409
;; PRIOR FILING DATE: 1999-05-28
;; PRIOR APPLICATION NUMBER: 60/087,306
;; PRIOR FILING DATE: 1998-05-29
;; NUMBER OF SEQ ID NOS: 154
;; SOFTWARE: PatentIn Ver. 2.0
;; SEQ ID NO 82
;; LENGTH: 610
;; TYPE: DNA
;; ORGANISM: Canis familiaris
US-10-218-654-82

Query Match 10.3%; Score 170; DB 14; Length 610;
Best Local Similarity 100.0%; Pred. No. 6,9e-71;
Matches 170; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 AGGCAACACTGAACTTTGAGAGCTATGAGATGCTTCTGAAATTTGAGTTGCTAGCTC 60
DB 608 AGGCAACACTGAACTTTGAGAGCTATGAGATGCTTCTGAAATTTGAGTTGCTAGCTC 549
QY 61 TTGGGGCTGCTATGTTTCTGCTTTGCTGTAGAAAAATCCCATGAAATAGACTGGTGCGAG 120
DB 548 TTGGGGCTGCTATGTTTCTGCTTTGCTGTAGAAAAATCCCATGAAATAGACTGGTGCGAG 489
QY 121 AGACCTTGACACTGCTCTCCACTCATGCAACTTGGCTGATAGCGGATGGG 170
DB 488 AGACCTTGACACTGCTCTCCACTCATGCAACTTGGCTGATAGCGGATGGG 439

RESULT 11

US-10-262-439-80
;; Sequence 80, Application US/10262439
;; Publication No. US20030143196A1
;; GENERAL INFORMATION:
;; APPLICANT: Sim, Gek-Kea
;; APPLICANT: Yang, Shumin
;; APPLICANT: Dreitz, Matthew J.
;; APPLICANT: Wonderling, Ramani S.
;; TITLE OF INVENTION: CANINE AND FELINE IMMUNOREGULATORY PROTEINS, NUCLEIC
;; FILE REFERENCE: IM-2-C2
;; CURRENT APPLICATION NUMBER: US/10/262,439
;; CURRENT FILING DATE: 2002-09-30
;; PRIOR APPLICATION NUMBER: US/09/451,527
;; PRIOR FILING DATE: 1999-12-01
;; PRIOR APPLICATION NUMBER: 09/322,409
;; PRIOR FILING DATE: 1999-05-28
;; PRIOR APPLICATION NUMBER: 60/087,306
;; PRIOR FILING DATE: 1998-05-29
;; NUMBER OF SEQ ID NOS: 174
;; SOFTWARE: PatentIn Ver. 2.0
;; SEQ ID NO 80
;; LENGTH: 610

TYPE: DNA
ORGANISM: Canis familiaris
FEATURE:
NAME/KEY: CDS
LOCATION: (29)..(430)
US-10-262-439-80

Query Match 10.3%; Score 170; DB 15; Length 610;
Best Local Similarity 100.0%; Pred. No. 6.9e-71;
Matches 170; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 AGGCAACACTGAACTTTGAGAGTATGAGAAATGCTTGAATTTGAGTTGCTAGCTC 60
DB 3 AGGCAACACTGAACTTTGAGAGTATGAGAAATGCTTGAATTTGAGTTGCTAGCTC 62
QY 61 TTGGGGGCTGCTATGTTTCTGCTTTGCTGTAGAAAATCCCATGAATAGACTGGTGCGAG 120
DB 63 TTGGGGGCTGCTATGTTTCTGCTTTGCTGTAGAAAATCCCATGAATAGACTGGTGCGAG 122
QY 121 AGACCTTGACACTGCTCTCCACTCATGGAACCTTGCTGATAGGCGATGGG 170
DB 123 AGACCTTGACACTGCTCTCCACTCATGGAACCTTGCTGATAGGCGATGGG 172

RESULT 12
US-10-262-439-82/c
Sequence 82, Application US/10262439
Publication No. US20030143196A1
GENERAL INFORMATION:

APPLICANT: Sim, Gek-kee
APPLICANT: Yang, Shumin
APPLICANT: Dreitz, Matthew J.
APPLICANT: Wondelring, Ramani S.
TITLE OF INVENTION: CANINE AND FELINE IMMUNOREGULATORY PROTEINS, NUCLEIC
TITLE OF INVENTION: ACID MOLECULES, AND USES THEREOF
FILE REFERENCE: IM-2-C2
CURRENT APPLICATION NUMBER: US/10/262,439
CURRENT FILING DATE: 2002-09-30
PRIOR APPLICATION NUMBER: US/09/451,527
PRIOR FILING DATE: 1999-12-01
PRIOR APPLICATION NUMBER: 09/322,409
PRIOR FILING DATE: 1999-05-28
PRIOR APPLICATION NUMBER: 60/087,306
PRIOR FILING DATE: 1998-05-29
NUMBER OF SEQ ID NOS: 174
SOFTWARE: PatentIn Ver. 2.0
SEQ ID NO 82
LENGTH: 610
TYPE: DNA
ORGANISM: Canis familiaris
US-10-262-439-82

Query Match 10.3%; Score 170; DB 15; Length 610;
Best Local Similarity 100.0%; Pred. No. 6.9e-71;
Matches 170; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 AGGCAACACTGAACTTTGAGAGTATGAGAAATGCTTGAATTTGAGTTGCTAGCTC 60
DB 608 AGGCAACACTGAACTTTGAGAGTATGAGAAATGCTTGAATTTGAGTTGCTAGCTC 549
QY 61 TTGGGGGCTGCTATGTTTCTGCTTTGCTGTAGAAAATCCCATGAATAGACTGGTGCGAG 120
DB 548 TTGGGGGCTGCTATGTTTCTGCTTTGCTGTAGAAAATCCCATGAATAGACTGGTGCGAG 489
QY 121 AGACCTTGACACTGCTCTCCACTCATGGAACCTTGCTGATAGGCGATGGG 170
DB 488 AGACCTTGACACTGCTCTCCACTCATGGAACCTTGCTGATAGGCGATGGG 439

RESULT 13
US-10-787-382-4
Sequence 4, Application US/10787382
Publication No. US20040191868A1

GENERAL INFORMATION:
APPLICANT: Yang, Shumin
APPLICANT: McCall, Catherine A.
APPLICANT: Weber, Eric R.
TITLE OF INVENTION: CANINE AND FELINE IMMUNOREGULATORY PROTEINS, NUCLEIC
TITLE OF INVENTION: ACID MOLECULES, AND USES THEREOF
FILE REFERENCE: IM-2-C1-C1
CURRENT APPLICATION NUMBER: US/10/787,382
CURRENT FILING DATE: 2004-02-24
PRIOR APPLICATION NUMBER: US/09/755,633
PRIOR FILING DATE: 2001-01-05
PRIOR APPLICATION NUMBER: 09/322,409
PRIOR FILING DATE: 1999-05-28
PRIOR APPLICATION NUMBER: 60/087,306
PRIOR FILING DATE: 1998-05-29
NUMBER OF SEQ ID NOS: 21
SOFTWARE: PatentIn Ver. 2.1
SEQ ID NO 4
LENGTH: 610
TYPE: DNA
ORGANISM: Canis familiaris
FEATURE:
NAME/KEY: CDS
LOCATION: (29)..(430)
US-10-787-382-4

Query Match 10.3%; Score 170; DB 19; Length 610;
Best Local Similarity 100.0%; Pred. No. 6.9e-71;
Matches 170; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 AGGCAACACTGAACTTTGAGAGTATGAGAAATGCTTGAATTTGAGTTGCTAGCTC 60
DB 3 AGGCAACACTGAACTTTGAGAGTATGAGAAATGCTTGAATTTGAGTTGCTAGCTC 62
QY 61 TTGGGGGCTGCTATGTTTCTGCTTTGCTGTAGAAAATCCCATGAATAGACTGGTGCGAG 120
DB 63 TTGGGGGCTGCTATGTTTCTGCTTTGCTGTAGAAAATCCCATGAATAGACTGGTGCGAG 122
QY 121 AGACCTTGACACTGCTCTCCACTCATGGAACCTTGCTGATAGGCGATGGG 170
DB 123 AGACCTTGACACTGCTCTCCACTCATGGAACCTTGCTGATAGGCGATGGG 172

RESULT 14
US-10-787-382-6/c
Sequence 6, Application US/10787382
Publication No. US20040191868A1
GENERAL INFORMATION:

APPLICANT: Yang, Shumin
APPLICANT: McCall, Catherine A.
APPLICANT: Weber, Eric R.
TITLE OF INVENTION: CANINE AND FELINE IMMUNOREGULATORY PROTEINS, NUCLEIC
TITLE OF INVENTION: ACID MOLECULES, AND USES THEREOF
FILE REFERENCE: IM-2-C1-C1
CURRENT APPLICATION NUMBER: US/10/787,382
CURRENT FILING DATE: 2004-02-24
PRIOR APPLICATION NUMBER: US/09/755,633
PRIOR FILING DATE: 2001-01-05
PRIOR APPLICATION NUMBER: 09/322,409
PRIOR FILING DATE: 1999-05-28
PRIOR APPLICATION NUMBER: 60/087,306
PRIOR FILING DATE: 1998-05-29
NUMBER OF SEQ ID NOS: 21
SOFTWARE: PatentIn Ver. 2.1
SEQ ID NO 6
LENGTH: 610
TYPE: DNA
ORGANISM: Canis familiaris
US-10-787-382-6

Query Match 10.3%; Score 170; DB 19; Length 610;
Best Local Similarity 100.0%; Pred. No. 6.9e-71;
Matches 170; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

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DB 608 AGGCAACACTGAACTTTCAGAGCTATGAGATGCTTCTGAAATTGAGTTTCTAGCTC 549
QY 61 TTGGGGCTGCTTATGTTTCTGCTTTGCTGTAGAAAATCCCATATAGACTGTGGCAG 120
DB 548 TTGGGGCTGCTTATGTTTCTGCTTTGCTGTAGAAAATCCCATATAGACTGTGGCAG 489
QY 121 AGACCTTGACACCTGCTCCCATGSAATTTGGCTGATAGGGGATGGG 170
DB 488 AGACCTTGACACCTGCTCCCATGSAATTTGGCTGATAGGGGATGGG 439

RESULT 15

US-09-755-633-7
; Sequence 7, Application US/09755633
; Patent No. US20020127200A1
; GENERAL INFORMATION:
; APPLICANT: Yang, Shumin
; APPLICANT: McCall, Catherine A.
; APPLICANT: Weber, Eric R.
; TITLE OF INVENTION: CANINE AND FELINE IMMUNOREGULATORY PROTEINS, NUCLEIC
; FILE REFERENCE: IM-2-C1-C1
; CURRENT APPLICATION NUMBER: US/09/755,633
; PRIOR FILING DATE: 2001-01-05
; PRIOR APPLICATION NUMBER: 09/322,409
; PRIOR FILING DATE: 1999-05-28
; PRIOR APPLICATION NUMBER: 60/087,306
; PRIOR FILING DATE: 1998-05-29
; NUMBER OF SEQ ID NOS: 21
; SOFTWARE: PatentIn Ver. 2.1
; SEQ ID NO 7
; LENGTH: 402
; TYPE: DNA
; ORGANISM: Canis familiaris
US-09-755-633-7

Query Match 8.7%; Score 144; DB 9; Length 402;

Best Local Similarity 100.0%; Pred. No. 2.2e-58;

Matches 144; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

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DB 1 ATGAGAAATGCTTCTGAAATTTGAGTTTGTAGCTCTTGGGGCTGCTATGTTTCTGACCTT 60
QY 87 GCTGTAGAAAATCCCATGATAGACTGTGGCAGAGACTTGAACATGCTCTCCACTCAT 146
DB 61 GCTGTAGAAAATCCCATGATAGACTGTGGCAGAGACTTGAACATGCTCTCCACTCAT 120
QY 147 CGAACTTGGCTGATAGGGGATGGG 170
DB 121 CGAACTTGGCTGATAGGGGATGGG 144

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GenCore version 5.1.6
Copyright (c) 1993 - 2005 CompuGen Ltd.

OM nucleic - nucleic search, using SW model

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(without alignments)
8965.920 Million cell updates/sec

Title: US-10-787-382-18

Perfect score: 1658
Sequence: 1 aggcgaacactgaacattc.....stagggaagatttgaga 1658

Scoring table: OLIGO_NUC
Gapop 60.0 , Gapext 60.0

Searched: 34239544 seqs, 19032134700 residues

Word size : 0

Total number of hits satisfying chosen parameters: 68479088

Minimum DB seq length: 0

Maximum DB seq length: 200000000

Post-processing: Listing first 45 summaries

Database :

EST: *
1: gb_est1.*
2: gb_est2.*
3: gb_hc.*
4: gb_est3.*
5: gb_est4.*
6: gb_est5.*
7: gb_est6.*
8: gb_ges1.*
9: gb_ges2.*

Pred. No. is the number of results predicted by chance to have a
score greater than or equal to the score of the result being printed,
and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	Query Match	Length	DB ID	Description
1	389	23.5	622	9	CE331159
2	289	1.7	528	5	BK493336
3	28	1.7	528	5	BK493336
4	28	1.7	528	5	BK493336
5	28	1.7	528	5	BK493336
6	28	1.7	528	5	BK493336
7	28	1.7	528	5	BK493336
8	28	1.7	528	5	BK493336
9	28	1.7	528	5	BK493336
10	28	1.7	528	5	BK493336
11	28	1.7	528	5	BK493336
12	28	1.7	528	5	BK493336
13	28	1.7	528	5	BK493336
14	28	1.7	528	5	BK493336
15	28	1.7	528	5	BK493336
16	28	1.7	528	5	BK493336
17	28	1.7	528	5	BK493336
18	28	1.7	528	5	BK493336
19	28	1.7	528	5	BK493336
20	28	1.7	528	5	BK493336
21	28	1.7	528	5	BK493336
22	28	1.7	528	5	BK493336
23	28	1.7	528	5	BK493336
24	28	1.7	528	5	BK493336

25	26	1.6	202	2	AW524394	AW524394	UI-R-B00-
26	26	1.6	206	1	AA475329	AA475329	vh14b02.x
27	26	1.6	266	7	CK701268	CK701268	SDA-FP 4
28	26	1.6	271	4	BG651868	BG651868	sad62b01
29	26	1.6	273	5	B0156344	B0156344	NF091H021
30	26	1.6	287	4	BG157100	BG157100	sab34d06
31	26	1.6	299	1	AL836569	AL836569	AL836569
32	26	1.6	299	1	AL836604	AL836604	AL836604
33	26	1.6	308	7	CO375395	CO375395	canh27f09
34	26	1.6	321	7	CO371439	CO371439	canh27f09
35	26	1.6	322	2	BI708412	BI708412	ct47d01.y
36	26	1.6	352	2	BE474681	BE474681	sp67c06.y
37	26	1.6	363	5	BU700148	BU700148	UI-M-DJ0
38	26	1.6	371	4	BI299610	BI299610	UI-R-CV2-
39	26	1.6	390	5	BU759812	BU759812	UI-R-FS1-
40	26	1.6	406	7	CV501477	CV501477	65988.1 M
41	26	1.6	411	1	A1274359	A1274359	q144c03.x
42	26	1.6	415	4	BI301007	BI301007	UI-R-DK0-
43	26	1.6	418	6	CD424543	CD424543	SAL 6_C01
44	26	1.6	419	7	CN782511	CN782511	ai_K003.9
45	26	1.6	426	2	AW124901	AW124901	UI-M-BH2.

ALIGNMENTS

RESULT 1	CE331159	622 bp	DNA	linear	GSS 26-SEP-2003
LOCUS	CE331159				
DEFINITION	ligr-gss-dog-1700033386568	Dog Library	Canis familiaris genomic,		
VERSION	CE331159				
KEYWORDS	CE331159.1	GI:16147469			
SOURCE	GSS				
ORGANISM	Canis familiaris (dog)				
REFERENCE	Canis familiaris				
AUTHORS	Eukaryota: Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;				
	Mammalia; Eutheria; Carnivora; Fissipedia; Canidae; Canis.				
	1 (bases 1 to 622)				
	Kirkness, E.F., Bafna, V., Halpern, A.L., Levy, S., Remington, K.,				
	Rusch, D.B., Delcher, A.L., Pop, M., Wang, W., Fraser, C.M. and				
	Venter, J.C.				
	The dog genome: survey sequencing and comparative analysis				
	Science 301 (5641), 1898-1903 (2003)				
TITLE	JOURNAL				
MEDLINE	22875432				
PUBMED	14512627				
COMMENT	Contact: Kirkness EF				
	The Institute for Genomic Research				
	Department of Eukaryotic Genomics, TIGR, 9712 Medical Center Drive,				
	Rockville, MD 20850, USA				
	Tel: 301-838-0200				
	Fax: 301-838-0208				
	Email: ekirkness@tigr.org				
	Class: shotgun.				
FEATURES	Location/Qualifiers				
SOURCE	1..622				
	/organism="Canis familiaris"				
	/mol_type="genomic DNA"				
	/strain="Standard Poodle"				
	/db_xref="taxon:9615"				
	/clone_lib="Dog Library"				
	/note="Site 1: BclXI; Libraries were prepared from				
	peripheral blood"				
ORIGIN					
Query Match	23.5%; Score 389; DB 9; Length 622;				
Best Local Similarity	100.0%; Pred. No. 2,7e+176;				
Matches	389; Conservative 0; Mismatches 0; Indels 0; Gaps 0;				
OY	1270 ATTAGCACCACCTGTCATTAAAGAGTTTTCAGGCTATAGACACATTGAAGACCA 1329				
DB	36 ATTAGCACCACCACTGTCATTAAAGAGTTTTCAGGCTATAGACACATTGAAGACCA 95				

QY 1330 ACTGCCACGGGAGGCTGTGATTAACCTATTCACAAAATTGTCTTTAATAAAGAACAC 1389
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Db 96 ACTGCCACGGGAGGCTGTGATTAACCTATTCACAAAATTGTCTTTAATAAAGAACAC 155
QY 1390 ATAGAGGCGCCAAAGTAAGTAAAGACATTTGGCAAAAATTAAAGTATATTGTCTGAC 1449
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Db 156 ATAGAGGCGCCAAAGTAAGTAAAGACATTTGGCAAAAATTAAAGTATATTGTCTGAC 215
QY 1450 TCTGCTGTTTTTTTTTTTTTTTTTTTCAAGATTTGACAGTTTCTCAATATCTCTCT 1509
|||||
Db 216 TCTGCTGTTTTTTTTTTTTTTTTTTTCAAGATTTGACAGTTTCTCAATATCTCTCT 275
QY 1510 GTTCTTTTACAGAAAGGTGTGACGAGAAAGATGAGAGTCAAAAGTTCTTAGACTA 1569
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Db 276 GTTCTTTTACAGAAAGGTGTGACGAGAAAGATGAGAGTCAAAAGTTCTTAGACTA 335
QY 1570 CCGTCAAGTATTTTGTGTGATTAACACCGAGTGTGACCGGAAAGTTGAGAACAAAC 1629
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Db 336 CCGTCAAGTATTTTGTGTGATTAACACCGAGTGTGACCGGAAAGTTGAGAACAAAC 395
QY 1630 CGGCTATTGTAGTGAAGATTTTGAGA 1658
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Db 396 CGGCTATTGTAGTGAAGATTTTGAGA 424

RESULT 2
BX493336 528 bp mRNA linear EST 04-SEP-2003
LOCUS DKFZP7811243.3 781 (synonym: hlc64) Homo sapiens cDNA clone
DEFINITION DKFZP7811243.3, mRNA sequence.
ACCESSION BX493336
VERSION BX493336.1 GI:32005734
KEYWORDS EST.
SOURCE Homo sapiens (human)
ORGANISM Homo sapiens

REFERENCE 1 (bases 1 to 528)
Mammalia; Eutheria; Primates; Catarrhini; Homnidae; Homo.
AUTHORS Bloecher, H., Boecher, M., Mewes, H.W., Weil, B., Amid, C., Oeanger, A.,
Fobo, G., Han, M., and Wiemann, S.
TITLE EST (Bloecher, H., Boecher, M., Mewes, H.W., Weil, B., Amid, C., et al.)
JOURNAL Unpublished (2003)
COMMENT Contact: MIPS

Ingolstaedter Landstr.1, D-85764 Neuherberg, Germany
This is the 3' sequence of the clone insert
Clone from S. Wiemann, Molecular Genome Analysis, German Cancer
Research Center (DKFZ), Email s.wiemann@dkfz-heidelberg.de,
Sequenced by GBR (National Research Centre for Biotechnology Ltd.,
Brunnshweilg/Germany) within the cDNA sequencing consortium of the
German Genome Project.
r1 sequence also available.
This clone (DKFZP7811243) is available at the RZPD in Berlin.
Please contact the RZPD: Ressourcencentrum, Heubnerweg 6, 14059
Berlin-Charlottenburg, GERMANY; Email: clone@rzpd.de.
Location/Qualifiers

FEATURES
source
1..528
/organism="Homo sapiens"
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/clone="DKFZP7811243"
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/note="vector: pspori1_sfi; Site_1: SfiI; Site_2: SfiIb;
cDNA-collection"

ORIGIN
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Best Local Similarity 100.0%; Pred. No. 0.022;
Matches 29; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
QY 1456 TGTGTTTTTTTTTTTTTTTACAGAAAT 1484

Db 1 TGTGTTTTTTTTTTTTTTTACAGAAAT 29
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RESULT 3
BX467653/c 556 bp mRNA linear EST 12-JUN-2003
LOCUS BX467653 NAPI Anopheles gambiae cDNA clone NAPI-P126-D-10-5, mRNA
DEFINITION sequence.
ACCESSION BX467653
VERSION BX467653.1 GI:31658594
KEYWORDS EST.
SOURCE Anopheles gambiae (African malaria mosquito)
ORGANISM Anopheles gambiae
Eukaryota; Metazoa; Arthropoda; Hexapoda; Insecta; Pterygota;
Neoptera; Endopterygota; Diptera; Nematocera; Culicoidae;
Anopheles

REFERENCE 1 (bases 1 to 556)
Christophides, G.K., Blass, K., Zdobnov, E.M., Carmouche, R., Benas, V.
and Kafatos, F.C.
TITLE Anopheles gambiae EST, European Molecular Biology Laboratory
JOURNAL Unpublished (2002)
COMMENT Contact: Christophides GK
Folis C. Kafatos Laboratory
European Molecular Biology Laboratory
Meyerhofstrasse 1, 69117 Heidelberg, Germany
Tel: +49 6221 387-440
Fax: +49 6221 387-306
Email: christophe@mbi-heidelberg.de
Contact: Christophides G.K.
European Molecular Biology Laboratory
Meyerhofstr. 1, 69117 Heidelberg, Germany.
Tel: +49 6221 387- 440
Fax: +49 6221 387-306
Email: christophe@mbi-heidelberg.de
Plate: P126 row: D column: 10.
Location/Qualifiers

FEATURES
source
1..556
/organism="Anopheles gambiae"
/mol_type="mRNA"
/db_xref="taxon:7165"
/clone="NAPI-P126-D-10-5"
/lab_host="E. coli DH10B"
/clone_id="NAPI"
/note="vector: pT7R3D-Pac (Pharmacia); Site_1: NotI;
Site_2: EcoRI; ESTs sequenced from the T7 priming site
that reads from the 5' end of cDNA. The NAPI is a
directionally cloned and normalized, oligo-T primed cDNA
library constructed from a mixture of Anopheles gambiae
developmental stages according to: Bonaldo, Lennon &
Soares (1996): Normalization and Subtraction: Two
Approaches To Facilitate Gene Discovery, Genome Research
6, 791-806."

ORIGIN
Query Match 1.7%; Score 28; DB 5; Length 556;
Best Local Similarity 100.0%; Pred. No. 0.068;
Matches 28; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
QY 1452 TGCGTGTGTTTTTTTTTTTTTTTACAA 1479
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Db 552 TGCGTGTGTTTTTTTTTTTTTTTACAA 525

RESULT 4
CB076419/c 684 bp mRNA linear EST 24-JAN-2003
LOCUS hE42H04.g1 Hedyotis terminalis flower - Stage 2 (NYBG) Hedyotis
DEFINITION terminalis cDNA clone hE42H04, mRNA sequence.
ACCESSION CB076419
VERSION CB076419.1 GI:27889856
KEYWORDS EST.
SOURCE Hedyotis terminalis

ORGANISM	Hedyotis terminalis			
REFERENCE	Eukaryota; Viridiplantae; Streptophyta; Embryophyta; Tracheophyta; Spermatophytes; Magnoliophyta; eudicotyledons; core eudicots; asterids; lamiales; Gentianales; Rubiaceae; Rubioidae; Spermacoceae; Hedyotis.			
AUTHORS	1 (bases 1 to 684) Levesque,M.P., Twigg,R.W., Mocley,T., Katari,M.S., Dedhia,N.N., O'Shaughnessy,A.L., Ballia,V., Martlensen,R.A., McComble,R.W., Berley,P. and Stevenson,D. .			
TITLE	Expressed tag sequences from Hedyotis terminalis flower - Stage 2 (NYBG)			
JOURNAL	Unpublished (2003)			
COMMENT	Contact: W. Richard McComble Lita Annenberg Hazen Genome Sequencing Center Cold Spring Harbor Laboratory PO Box 100, Cold Spring Harbor, NY 11724, USA Tel: 516 367 8884 Fax: 516 367 8874 Email: mcomble@cshl.org Plate: hfa2 row: h column: 04 Seq primer: -21M3univrev High quality sequence stop: 684. Location/Qualifiers			
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ORIGIN				
Query Match	1.7%;	Score 28;	DB 6;	Length 684;
Best Local Similarity	100.0%;	Pred. No. 0.068;		
Matches 28;	Conservative	0;	Mismatches	0;
Indels	0;	Gaps	0;	
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DB	620	TTTTTTTTTTTTTTTACAGAATTG	593	
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BE897924				
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DEFINITION	601440409p1 NIH_MGC_72 Homo sapiens cDNA clone IMAGE:392515 5', mRNA sequence.			
ACCESSION	BE897924			
VERSION	BE897924.1 GI:10363875			
KEYWORDS	EST.			
SOURCE	Homo sapiens (human)			
ORGANISM	Homo sapiens			
REFERENCE	Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Primates; Catarrhini; Homnidae; Homo.			
AUTHORS	1 (bases 1 to 915) NIH-MGC http://mgc.nci.nih.gov/ .			
TITLE	National Institutes of Health, Mammalian Gene Collection (MGC)			
JOURNAL	Unpublished (1999)			
COMMENT	Contact: Robert Strausberg, Ph.D. Email: cgapbs-remail.nih.gov Tissue Procurement: ATCC/DCTD/DTF cDNA Library Preparation: Life Technologies, Inc. cDNA Library Arrayed by: The I.M.A.G.E. Consortium (LNLN) DNA Sequencing by: Incyte Genomics, Inc. Clone distribution: MGC clone distribution information can be found through the I.M.A.G.E. Consortium/LNLN at: http://image.llnl.gov Plate: LLM9764 row: b column: 04			

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        /clone_1lb="NH_MGC_72"
        /note="Organ: skin; Vector: pCMV-SPORT6; Site 1: NotI;
Site 2: SalI; Cloned unidirectionally. Primer: Oligo dT.
Average insert size 2 kb. Library constructed by Life
Technologies."

ORIGIN
Query Match      1.7%; Score 28; DB 2; Length 915;
Best Local Similarity 100.0%; Pred. No. 0.068;
Matches 28; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Oy      1458 TTTTTCATTTTTTTTACAGATTG 1485
          |||||||
Db       21 TTTTTCATTTTTTTTACAGATTG 48

RESULT 6
ALJ370520/c ALJ370520 522 bp mRNA linear EST 03-AUG-2000
LOCUS MEBA38C10R1 McBA Medicago truncatula cDNA clone MEBA38C10 T7, mRNA
DEFINITION sequence.
ACCESSION ALJ370520
VERSION ALJ370520.1 GI:9670273
KEYWORDS EST.
SOURCE Medicago truncatula (barrel medic)
ORGANISM Medicago truncatula
Eukaryota; Viridiplantae; Streptophyta; Embryophyta; Tracheophyta;
Spermatophyta; Magnoliophyta; eudicotyledons; core eudicots;
rosids; eurosids I; Fabales; Fabaceae; Papilionoideae; Trifolieae;
Medicago.
1 (bases 1 to 522)
Journet,E.P., Crespeau,H., van-Tuinen,D., Gouzy,J., Jaillon,O.,
Niebel,A.A., Garreau,V., Chagnier,O., Kahn,D.,
Gienihazi-Pearson,V. and Gamas,P.O.
Medicago truncatula ESTs from nitrogen-starved roots
Unpublished (2000)
Contact: Genoscope
Genoscope - Centre National de Sequencage
2 rue Gaston Cremieux, CP 5706 - 91057 EVRY cedex - FRANCE
Email: segrete@genoscope.cns.fr, web : www.genoscope.cns.fr
Contact : Pascal Gamas and Etienne-Pascal Journet, Laboratoire de
Biologie Moléculaire des Relations Plantes-Microorganismes,
CNRS-INRA, BP 27 31326 Castanet-Tolosan Cedex, France (Email :
Mc-est@toulouse.inra.fr Website :
http://sequence.toulouse.inra.fr/McTruncatula.html).
Location/Qualifiers
    1..522
        /organism="Medicago truncatula"
        /mol_type="mRNA"
        /cultivar="Jemalong"
        /db_xref="taxon:3880"
        /clone="MEBA38C10"
        /tissue_type="root tips"
        /dev_stage="harvested after 3 days of N-starvation"
        /clone_1lb="McBA"
        /note="Vector: pluescript PSK, Site 1: EcoRI; Site 2:
XhoI; Plants were grown in an aeroponic chamber for 14
days on nitrogen-rich medium followed by 3 days on N-free
medium. RNA was extracted from root tips (1-3 cm). cDNA
was prepared from polyA+ enriched RNA. The cDNA was
directionally ligated into Uni-zapXR vector from
Stratagene and packaged using Gigapack Gold packaging
extracts. Plasmids containing cDNA inserts were
mass-excised from phage stocks using Exbsit helper phage

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	Query Match	1.6%	Score 27;	DB 5;	Length 550;
	Best Local Similarity	100.0%	Pred. No. 0.21;		
	Matches 27; Conservative	0;	Mismatches	0;	Indels 0; Gaps 0;
QY	1458	TTTTTTTTTTTTTTTACAGAAATT	1464		
Dd	6	TTTTTTTTTTTTTTTACAGAAATT	.32		

RESULT 9	CA429123	614 bp	RNA	linear	EST 07-NOV-2002
LOCUS	CA429123				
DEFINITION	CA429123	614 bp	CGAP	RNA	linear
ACCESSION	CA429123				
VERSION	CA429123.1	GI:24791849			
KEYWORDS	EST.				
SOURCE	Homo sapiens (human)				
ORGANISM	Homo sapiens				
REFERENCE	Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Primates; Catarrhini; Homnidae; Homo.				
AUTHORS	1 (bases 1 to 614)				
TITLE	NCI-CCAP http://www.ncbi.nlm.nih.gov/ncicgap .				
JOURNAL	National Cancer Institute, Cancer Genome Anatomy Project (CGAP), Tumor Gene Index				
COMMENT	Unpublished (1997)				
	Contact: Robert Strausberg, Ph.D.				

JOURNAL COMMENT

Unpublished (1997)
Contact: Robert Strausberg, Ph.D.
Email: rsgabbs@email.nih.gov
Tissue Procurement: James Martin
cDNA Library preparation: Dr. M. Bento Soares, University of Iowa
cDNA Library Arrayed by: Dr. M. Bento Soares, University of Iowa
DNA Sequencing by: Dr. M. Bento Soares, University of Iowa
Clone Distribution: Clone distribution information can be obtained
from Dr. M. Bento Soares, bento-soares@iowa.edu
The following repetitive elements were found in this cDNA
sequence: 1-45, >AT_rich#low_complexity 46-166, >ALU (matched
complement) 500-599, >ALU
Seg primer: M13 FORWARD
POLYA=yes.

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FEATURES
SOURCE

location/Qualifiers
1. 614

/organism="Homo sapiens"
/mol_type="mRNA"
/db_xref="taxon:9606"
/clone="UI-H-FH1-bfh-1-16-0-U"
/tissue_type="Cell Line"
/dev_stage="Adult"
/lab_host="DH10B (Life Technologies)"
/clone_1ib="NCI CGAP FH1"
/note="Organ: Chondrosarcoma; Vector: pT7T3-Pac
(Pharmacia) with a modified polylinker; Site_1: EcoR I;
Site_2: Not I; NCI CGAP FH1 is a normalized cDNA library
obtained from a cell line derived from grade I
chondrosarcoma tissue. The library was constructed and
normalized according to Bonaldo, Lennon and Soares, Genome
Research, 6:791-806, 1996. First strand cDNA synthesis was
primed with an oligo-dT primer containing a Not I site.
Double stranded cDNA was ligated to an EcoR I adaptor,
digested with Not I, and cloned directionally into
pT7T3-Pac vector. The oligonucleotide used to prime the
synthesis of first-strand cDNA contains a library tag
sequence that is located between the Not I site and the
(dT)18 tail. The sequence tag for this library is
AGAAATCCGCGC. The cell line was provided by Dr. James Martin
from the University of Iowa.
TAG TISSUE=Human Chondrosarcoma Cell Line C88 - Grade 1
Chondrosarcoma
TAG_LIB=UI-H-FH1
TAG_SEQ=AGAAATCCGCGC"

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Qy      1458 TTTTTTTTTTTTTTTTTACAGAAAT 1484
          |||||
Db       1 TTTTTTTTTTTTTTTTTACAGAAAT 27
          .

Best Local Similarity 100.0%; Pred.No.0.21;
Matches 27; Conservative 0; Mismatches 0; Indels 0; Gaps 0.
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RESULT	10
LOCUS	CV225996
DEFINITION	659 bp mRNA linear EST 21-SEP-2006
ACCESSION	WS0162.BB1_P19_PT-DX-A-7
VERSION	CDNA Clone WS0162_P19 3', mRNA sequence.
KEYWORDS	CV225996
SOURCE	CV225996.1 GI:52374925
ORGANISM	EST.
	<i>Populus balsamifera</i> subsp. <i>trichocarpa</i> (<i>Populus trichocarpa</i>)
	<i>Populus balsamifera</i> subsp. <i>trichocarpa</i>

REFERENCE	AUTHORS	TITLE	JOURNAL	COMMENT
1 (bases 1 to 659)	Ralph, S., Cooper, D., Kolosova, N., Oddy, C., Butterfield, Y., Kirkpatrick, R., Liu, J., Palmunier, D., Stott, J., Barber, S., Yang, G., Babakieff, R., Brown-John, M., Chand, S., Featherstone, R., Masson, A., Mayo, M., Moran, J., Olson, T., Wong, D., Rittland, C.E., Siddiqui, A., Holt, R., Jones, S., Marra, M., Ellis, B.E., Douglas, C., Rittland, K. and Bohlmann, J.	The poplar transcriptome: Analysis of expressed sequence tags from multiple cDNA libraries unpublished (2004)		
	Contact: Joerg Bohlmann			
	Genome BC forest genomics program			
	University of British Columbia			
	UBC Biotechnology Laboratory, 6174 University Boulevard, Rm. 237, Vancouver, British Columbia, Canada, V6T 1Z3			
	Tel: 1-604-822-0282			
	Fax: 1-604-822-6097			
	Email: bohlmann@interchange.ubc.ca			
	Plate: MS0162 row: P column: 19			
	High quality sequence stop: 659			
	POLYA=yes.			

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FEATURES
source
Location/Qualifiers
1..659
/organism="Populus balsamifera subsp. trichocarpa"
/mol_type="mRNA"
/cultivar="VT-125"
/sub_species="trichocarpa"
/db_xref="taxon:3694"
/clone="WS0162 p19"
/sex="Not determined"
/lab_host="E. coli DH10B T1 phage resistant cells"
/clone_idb="PT-DX-A-7"
/notes="Vector: pBluescript II SK (+) XR; Site_1: EcoRI (5' end of cDNA) ; Site_2: XhoI (3' end of cDNA) ; Outer xylem from 5 year old trees harvested every two weeks between April and October of 2002 at the University of British Columbia south campus farm in Vancouver, British Columbia
mRNA was isolated from each tissue source independently and equal quantities of mRNA from each tissue were then pooled. cDNA was prepared from 5 micrograms of mRNA and directionally ligated into the pBluescript II SK (+) XR vector using the pBluescript II XR cDNA Library Construction Kit according to manufacturer's instructions with modifications (Stratagene). Plasmid DNA was then transformed by electroporation into DH10B cells (Invitrogen) for propagation."

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ORIGIN	-
Query Match	1.6%; Score 27; DB 6; Length 614;
	Best Local Similarity 100.0%; Pred. No. 0.21; Matches 27; Conservative 0; Mismatches 0; Indels 0; Gaps 0

lab host="X11-blue"
/clone_lib="USDA-Tifton Peanut Immature Pod cDNA library
(UTRP)"
/note="Vector: Uni-ZAP XR; Site_1: EcoRI; Site_2: XhoI;
cDNA library was constructed from peanut cultivar A13
(NCV114R4). A13 has resistance to Aspergillus infection
and drought tolerance. The immature pods that developed to
R6 stage were collected from different plants, and placed
into liquid N2 immediately and stored in -80°C freezer.
Total RNA was isolated with TRIzol-Reagent
ultrapure (GIBCOBRL). mRNA was extracted and purified from
total RNA (Promega). cDNA synthesis and library
construction followed the protocol of by ZAP-cDNA GigaPack
III Gold cloning kit (Stratagene). The cDNA above 500bp
were collected after size-fraction. The inserts were
directionally cloned into Uni-ZAP XR vector using XhoI
EcoRI sites adapters. The lambda library was packed into
phages using GigaPack III Gold (Stratagene). The
un-simplified library was used to excise plasmidic
phagemids from the Uni-ZAP XR vector, and the phagemids
was used to transform the host bacteria SOLR. The library
was constructed by Dr. Meng Luo and Dr. Phat Dang."

Query Match	1.6%	Score 27	DB 6	Length 720
Best Local Similarity	100.0%	Pred. No. 0.21		
Matches 27	Conservative 0	Mismatches 0	Indels 0	Gaps 0
OY	1458	TTTTTTTTTTTTTTTTTACAGAAATT	1484	
Ob	11	TTTTTTTTTTTTTTTTTACAGAAATT	37	

LOCUS	818 bp	DNA	linear	GSS 01-SEP-2000
CNS04725				
DEFINITION	Tetradon nigroviridis genome survey sequence PUC-Ori end of clone 089D09 of library G from Tetradon nigroviridis, genomic survey			

ACCESSION	AL278618
VERSION	AL278618.1
KEYWORDS	GI:8014612
SOURCE	GSS; genome survey sequence.
ORGANISM	Tetraodon nigroviridis
	Tetraodon nigroviridis

Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Actinopterygii; Neopterygii; Teleostei; Euteleostei; Neoteleostei; Acanthomorpha; Acanthopterygii; Percomorpha; Tetraodontiformes; Tetraodonidae; Tetraodontidae; Tetraodon.

REFERENCE	AUTHORS	TITLE	JOURNAL	MEDLINE	PUBMED
1	Reest Crolius, H., Jallion, O., Dasilva, C., Bouneau, L., Fisher, C., Barnot, A., Fzimes, C., Wincker, P., Brottier, P., Quetier, F., Saurin, W. and Weissenbach, J.	Estimate of human gene number provided by genome-wide analysis using <i>Tetradodon nigroviridis</i> DNA sequence	Nat. genet. 25 (2), 235-238 (2000)	20296633	10835645

2
Roest Crolianus, H., Jallion, O., Dasilva, C., Ozouf-Costaz, C.,
Fizames, C., Fischer, C., Bouneau, B., Jilka, A., Queller, F.,
Saurin, W., Bernot, A. and Weissenbach, J.
Characterization and repeat analysis of the compact genome of the
freshwater pulmonate *Retardodon nigroviridis*
Genome Res. 10 (7), 939-949 (2000)

MEDLINE 20359637
PUBMED 10899143
REFERENCE 3 (bases 1 to 818)
AUTHORS Genoscope.
TITLE Direct Submission
JOURNAL Submitted (12-APR-2000) Genoscope - Centre National de Sequençage : BP 191 91006 EVRY cedex - FRANCE (E-mail : sequef@genoscope.cns.fr ; Web : www.genoscope.cns.fr)
COMMENT This sequence is a single read and was generated as part of a large

scale clone-end sequencing project of the Tetraodon nigroviridis genome. For more information, please take a look at <http://www.genoscope.cns.fr/tetraodon>.
location/qualifiers

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location/Genomes
source
1. .818
location/Genomes
1. .818
/organism="Tetrarodon nigroviridis"
/mol_type="genomic DNA"
/db_xref="taxon:99883"
/clone="089D09"
/clone_lib="C"
/notes="Genoscope sequence ID : C0BG089CB05$PI-end :
PUC-011"

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ORIGIN
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      Best Local Similarity 100.0%; Pred. No. 0.21;
      Matches 27; Conservative 0; Mismatches 0; Indels 0; Gaps
QY      1449 CTCGCGCTGTTTTTTTTTTTTTTTTTTTT 1475
      |||||||
Db      585 CTCGCGCTGTTTTTTTTTTTTTTTTTTTT 611

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RESULT 15	CR718261/c	LOCUS	DEFINITION	ACCESSION	VERSION	KEYWORDS	SOURCE	ORGANISM
CR718261	Tetradonon nigroviridis full-length cDNA.	856 bp	linear	HTC 19-AUG-2-				
CR718261	Tetradonon nigroviridis full-length cDNA.							
CR718261	CR718261.1 GI:51216512							
HTC: cDNA, full-length, Tetradonon nigroviridis.								
Tetradonon nigroviridis								
Tetradonon nigroviridis								

REFERENCE
AUTHORS
Genoscope.
1 (bases 10 to 856)

TITLE Direct Submission
JOURNAL Submitted (10-AUG-2004) Genoscope - Centre National de Séquençage
2 rue Gaston Creneau, CP 5706 91057 Evry cedex - FRANCE
(E-mail : secrete@genoscope.cns.fr - Web : www.genoscope.cns.fr)
COMMENT The sequences are based on single pass reads.
More information available at
<http://www.genoscope.cns.fr/tetraodon>.

FEATURES	Location/Qualifiers
source	1. .856
	/organism="Tetrahodon nigroviridis"
	/mol_type="mRNA"
	/db_xref="taxon:99863"
ORIGIN	/rissue_type="Eggs"

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Query Match          1.6%; Score 27; DB 3; length 856;
Best Local Similarity 100.0%; Pred. No. 0.21;
Matches 27; Conservative 0; Mismatches 0; Indels 0; Gaps
QY      1458 TTTTTTTTTTTTTTTTTTACAGAAATT 1484
          |||||||
          844 TTTTTTTTTTTTTTTTTTACAGAAATT 818

Search completed: August 9, 2005, 00:13:30
Job time : 7045.94 secs

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Db 886 -TATTCCTTCCTCCTCAGCTCTGAGGATTCCTGTTCCGTATCATAAAAATGTAAGT 944
Qy 414 AAATATGATTTGATTAATGATTTACATGATCAG-----TTGATATTTTAAAGCTATAAA 469
Db 945 AAATATGATTTGATTAATGATTTACATGATTAATGATTAATTTCTGTTTAAAGCTATAAA 1004
Qy 470 GATACGTTTAACTGGAGATGATTTAAATTTTATCTATTTGTTTAAATGTTGCGGATGT 529
Db 1005 TCATATGATTTGATTTGATTAATTTTCTATATTTGTTTAAATGTTGCGGATGT 1064
Qy 530 AAAT-TATGCTTATGATTAATTTGATTTGATTTGATTTGATTTGATTTGATTTGATTT 588
Db 1065 GAATGCTGATCTTAAATGATTAATGATTTGATTTGATTTGATTTGATTTGATTTGATTT 1109
Qy 589 GAATGCTGATCTTAAATGATTTGATTTGATTTGATTTGATTTGATTTGATTTGATTTGATTT 648
Db 1110 GAATGCTGATCTTAAATGATTTGATTTGATTTGATTTGATTTGATTTGATTTGATTTGATTT 1169
Qy 649 AGCTGCTGATCTTAAATGATTTGATTTGATTTGATTTGATTTGATTTGATTTGATTTGATTT 708
Db 1170 AGCTGCTGATCTTAAATGATTTGATTTGATTTGATTTGATTTGATTTGATTTGATTTGATTT 1228
Qy 709 GCTGCTGATCTTAAATGATTTGATTTGATTTGATTTGATTTGATTTGATTTGATTTGATTT 768
Db 1229 TCTGCTGATCTTAAATGATTTGATTTGATTTGATTTGATTTGATTTGATTTGATTTGATTT 1283
Qy 769 ACTGCTGATCTTAAATGATTTGATTTGATTTGATTTGATTTGATTTGATTTGATTTGATTT 828
Db 1284 ACTGCTGATCTTAAATGATTTGATTTGATTTGATTTGATTTGATTTGATTTGATTTGATTT 1342
Qy 829 ATATTTAATGCTGATCTTAAATGATTTGATTTGATTTGATTTGATTTGATTTGATTTGATTT 888
Db 1343 -CTATATTAATGCTGATCTTAAATGATTTGATTTGATTTGATTTGATTTGATTTGATTTGATTT 1400
Qy 889 CTGATGATGCTGATCTTAAATGATTTGATTTGATTTGATTTGATTTGATTTGATTTGATTT 948
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Qy 949 ATAAATTTACAGCTGATCTTAAATGATTTGATTTGATTTGATTTGATTTGATTTGATTTGATTT 1008
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Qy 1009 GTTGTATTAATGCTGATCTTAAATGATTTGATTTGATTTGATTTGATTTGATTTGATTTGATTT 1068
Db 1514 -ATTACCTTCCAAACATTTTTCAGTTATATTAATTAATTAATTAATTAATTAATTAATTAATTA 1568
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Db 1569 AAATCTCTGATTAATTAATTAATTAATTAATTAATTAATTAATTAATTAATTAATTAATTAAT 1628
Qy 1128 GTGCTTCCCACTGGAAGAGACAGTAAATTAATTAATTAATTAATTAATTAATTAATTAATTAAT 1187
Db 1629 GTGCTTCCCACTGGAAGAGACAGTAAATTAATTAATTAATTAATTAATTAATTAATTAATTAAT 1684
Qy 1188 AACCCCAACAAACAAAGCTTAATTT----- 1214
Db 1685 AATACCAACAAACAAAGCTTAATTTGAGCAAAATTTGATTAATTAATTTTAA 1744
Qy 1215 ----- 1214
Db 1745 TTGATGATTAATAATTAATTAATTAATTAATTAATTAATTAATTAATTAATTAATTAATTAAT 1804
Qy 1215 -----TGACCAAAATTTTATGCTGTTTATGATTAATTAATTTT 1256
Db 1805 ACATTCAGAGATGAGCAATGAGCAAAATTTTATACCTTGCTGATTAATTTGCA-TTTT 1863
Qy 1257 TAAATCTTCTGATTTAGCAACCACTGCTGATTAAGAAATTTTGAAGGATATAGACAC 1316
Db 1864 AAAAATTTTCTGATTTAGCAACCACTGCTGATTAAGAAATTTTGAAGGATATAGACAC 1923
Qy 1317 ATTGAAGAACCAACTGCGCAGGGAGGCTGTGATTAATTAATTTCCAAAATTTGCTTT 1376

Db 1924 ACTGAGAGTCAAACTGTGCAAGGGGATCTGTGAAAAGATTAATCAAAAATTTGCTT 1983
Qy 1377 AATTAAGAAACACATAGAGCGCCAAAAGATTAAGATTTGGCAAAAATTTAGT 1436
Db 1984 AATTAAGAAATACATAGAGCGCCAAAAGATTAAGATTTACACATTTCAATGGAAGCTATAT 2043
Qy 1437 ATATTTGCTGACCTGCTGTTT-----TTTAAAGAAATGACAGTTTCTTA 1496
Db 2044 TGTCTGCTG-----TGCTATTTTCAATGAAATTAATGACAGTTTCTG 2085
Qy 1497 CAATATCT-----CCTGCTTCTTTTAAAGAAAGGTGTGAGAGAAAGATGAGAG 1550
Db 2086 TAATACCTATTTGATTAATTTTCTTTTCAAGAAAAGGTGTGAGAGAAAGAGAG 2145
Qy 1551 TGACAAAGTCTTACAGCTACCTGCAAGATTTCTTGATTAATTAACACCGATGACAC 1610
Db 2146 TAAACCAATTCAGAGCTACCTGCAAGATTTCTTGATTAATTAACACCGATGATTA 2205
Qy 1611 CGAAAGTGAAGAAACAAACCGCTTAATTTGATGAAAGATTTTGAG 1657
Db 2206 TAGAAAGTTGAGACTAACTGTTGTTGTCAGCAAGAAATTTTGAG 2252

RESULT 2
5324640-1
; Patent No. 5324640
; APPLICANT: Honjo, Tasuku; Takatsu, Kiyoshi; Severinson, Eva
; TITLE OF INVENTION: HUMAN B-CELL DIFFERENTIATION FACTOR AND
; PROCESS OF PRODUCING SAID FACTOR
; NUMBER OF SEQUENCES: 2
; CURRENT APPLICATION DATA:
; APPLICATION NUMBER: US/07/99,467
; FILING DATE: 21-SEP-1987
; SEQ ID NO:1:
; LENGTH: 3230
5324640-1

Query Match 36.2%; Score 600.6; DB 6; Length 3230;
Best Local Similarity 67.8%; Pred. No. 1.7e-131;
Matches 1212; Conservative 0; Mismatches 384; Indels 191; Gaps 19;

Qy 1 AGCAAACTGTAACATTTGAGAGCTATGAGAAATGCTTCTGAATTTGAGTTGCTAGCTC 60
Db 527 AGCAAACTGTAACATTTGAGAGCTATGAGAAATGCTTCTGAATTTGAGTTGCTAGCTC 586
Qy 61 TTGGGGCTGCTATGTTTCTGCTTCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCT 120
Db 587 TTGGGGCTGCTATGTTTCTGCTTCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCT 646
Qy 121 AGACCTTGACATGCTCTCCATCATGCACTTGCTGATGAGCGATGAGGATTAATTTCT 180
Db 647 AGACCTTGACATGCTCTCCATCATGCACTTGCTGATGAGCGATGAGGATTAATTTCT 706
Qy 181 TTTTATCTTCAAGCTTTAAATGATGCTGCTGATTTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCT 234
Db 707 TTTATGATTTCTTCAAGCTTTAAATGATGCTGCTGATTAATTTGATGCTGCTGCTGCTGCTGCT 766
Qy 235 -TTTAAAGATCACTTAATTAATTAATTAATTAATTAATTAATTAATTAATTAATTAATTAATTAAT 293
Db 767 ATATAGAGATCTGTTAATTAATTAATTAATTAATTAATTAATTAATTAATTAATTAATTAATTAAT 825
Qy 294 ATGTTACTGAGAAATTAATTAATTAATTAATTAATTAATTAATTAATTAATTAATTAATTAATTAAT 353
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Qy 354 TTGTTCTCTTTCTTTTCAAGCTGATGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCT 413
Db 886 -TATTTCTTCTCTTCAAGCTCTGAGATTTCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCT 944
Qy 414 AAATTAATGATTAATTAATTAATTAATTAATTAATTAATTAATTAATTAATTAATTAATTAATTAAT 469
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QY 470 GTATCACTTAACATGGAGATGATTTAAATTTATCTATTTTGTGTTTATGTCGCGAGT 529
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 QY 530 AAT-TATGCTTATGATATTTAGAAATGCTGTAGAAATGCTCTAATATTTAAGTA 588
 DB 1065 GAATGCTGATCTTAAATATGAGATGACTTT-----TTATCAAGTA 1109
 QY 589 GAATCACTTAAGCAAGGAGATGAGCCCTTTTGTGATGTTGTCAGTTCTCATCAAG 648
 DB 1110 GAATCTTTTAAACAAGAGATGATAGCTCTTGTGATGTTGTAGTTGCTTCCCAAG 1169
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 DB 1170 AGCATCGTTCAGG-ATTCCTTCCAGAAAGATTCACACTGAGAGAGGCGCTGAG 1228
 QY 709 GCTTCATTCACCTCTGTCGTTGGCTTCTTCACCTCAAGCTTTTCTGAAGTACAGCA 768
 DB 1229 TCTCGTTCAGGTTCTGAC-----TCTTCTCATCTAAAGTGTCTGAAGTATTAACA 1283
 QY 769 ACTTGGGCTTATTTTATGAAATATGCTGATGACATGAAATATTCAGTGAAGCTT 828
 DB 1284 ACTGAGATTAATTTTATGAAACATGATGATGACATTTAAATATATTAACAATGCG- 1342
 QY 829 ATATTATGATCACTTCACATATTTAAATGATTTTAACTCTAATGGAATCATATACAT 888
 DB 1343 --CTATTTATTAATTTCTGCTACTTAAATATTAATGATGATGATGATGATGAT 1400
 QY 889 CTGAGATATGCTGATCTATTTAAATGTTAAATGATGATCATTTAGTCTAATAGA 948
 DB 1401 TGAATATG---CTGCTCATATTTAAATGTTAAATATATAGTTT-ATTAGCTAATAGA 1456
 QY 949 ATAAATTTACAGCTAGAACTATAGAGAAATCTGAGGAGAGTAAATCAGTAAGCA 1008
 DB 1457 ATAAACCTACAGCTAGAACTATAGAAACAT--TGATATGATTTAAATATATATGTC- 1513
 QY 1009 GTTGAATATATCTGTAAGCATTTATTTTCAATTAATCATTTATATCATTTGTA 1068
 DB 1514 ----ATTACCTTCCAAACATTTTTCAGATTAATTAATTAATTAATCTTTATA 1568
 QY 1069 ACATCTTCACTTAATTTATTAATTAATCATTTAC--TTATGATTAATTAATGCTTAATAG 1127
 DB 1569 AAATCTTCACTTAATTTATTAATTAATGCTTATCTTTTGAATTTTATCTTAATATGTC 1628
 QY 1128 GTGCTTTCCACCTGAGAAAGACACAGTAAATCTTTGGAGAGAGGAACTTGCTTA 1187
 DB 1629 GTGCTTTGCTGCTAGAAA---ACAAACAAATTAATCTTTGAGAGAGGAACTCATGTA 1684
 QY 1188 AACCCCAAAACAAAGCTAATCTTT-----1214
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 QY 1215 -----1214
 DB 1745 TTGATGATTAATAAGTATATATTTATTTGATCATATGATGTTTGAAGTATAT 1804
 QY 1215 -----TGACCAAAATTTTATGCTTTGTTGATGATTAATTTT 1256
 DB 1805 ACATTCAGAAATGACATGACCAAAATTTTATCTTTGCTGATTAATTTGCA--TTTT 1863
 QY 1257 TAAATCTTCTCATTTTGAACCAACATGATTAATAAGATTTTCAAGGATTAAGAC 1316
 DB 1864 AAAAAATTTCTCATTTTGAACCAACATGATTAATAAGATTTTCAAGGATTAAGAC 1923
 QY 1317 ATTGAAGAACAATGCGCCACGAGGAGCTGTGATTAATCTATTTCAAAATCTTCTT 1376
 DB 1924 ACTGAGAGTGAATGTCGAGAGGAGGATCTGTGAAGAGCATATTCAAAATCTTCTT 1983
 QY 1377 AATTAAGAACAATGAGCCCAAAAGTAAATTAAGACATTTGGCAAAAATCTTAAGT 1436
 DB 1984 AATTAAGAACAATGAGCCCAAAAGTAAATTAAGTAAATTAAGTAAATGAGTAAAT 2043
 QY 1437 AATTTGCTGATCTGCTGTTT-----TTTAAAGATTAAGTAAATGAGTAAAT 1496

DB 2044 TGTCTGCTG-----TGCCATTTCTATGAAATTTGACAGTTTCTG 2085
 QY 1497 CAATATCT-----CCTCTGCTTTTAAACAGAAAGTGTGACGAGAAATGAGAG 1550
 DB 2086 TAATCTATGTCATTTTCTTTTACAGAAAGTGTGAGAGAAAGAGAGAG 2145
 QY 1551 TGACAAAGTCTTACACTGACATGATTTCTTGTGTAAATTAACAGAGTGAAC 1610
 DB 2146 TAACCAATCTTACACTGACATGATTTCTTGTGTAAATTAACAGAGTGAAT 2205
 QY 1611 CGAAAGTGAACAAACCGGCTTATTTGATGAGAAATTTGAG 1657
 DB 2206 TAGAAAGTGAACAAACGCTTATTTGATGAGAAATTTGAG 2252
 RESULT 3
 5324640-1
 Patent No. 5324640
 Applicant: Honjo, Tasuku; Takatsu, Kiyoshi; Severinson, Eva
 TITLE OF INVENTION: HUMAN B-CELL DIFFERENTIATION FACTOR AND
 PROCESS OF PRODUCING SAID FACTOR
 NUMBER OF SEQUENCES: 2
 CURRENT APPLICATION DATA:
 APPLICATION NUMBER: US/07/99,467
 FILING DATE: 21-SEP-1987
 SEQ ID NO.1:
 LENGTH: 3230
 5324640-1
 Query Match 36.2%; Score 600.6; DB 6; Length 3230;
 Best Local Similarity 67.8%; Pred. No. 1,76-131;
 Matches 1212; Conservative 0; Mismatches 384; Indels 191; Gaps 19;
 QY 1 AGCAAACTGAACTTGAAGCTTGAATTTGATTTGCTGATCTC 60
 DB 527 AGCAAACTGAACTTGAAGCTTGAATTTGATTTGCTGATCTC 586
 QY 61 TTGGGCTGCTAATTTTCTGCTTGTGTAAGAAATCCCATTAATGATGCTGAG 120
 DB 587 TTGGGCTGCTAATTTTCTGCTTGTGTAAGAAATCCCATTAATGATGCTGAG 120
 QY 121 AGACCTGACAGCTCTCCACATGCAATTTGCTGATAGGAGTGAATTTTCT 180
 DB 647 AGACCTGACAGCTCTCTTCTATGATGCAATCTGCTGATAGCCAAATGAGTAA 706
 QY 181 TTTGATTCCTAAGCTTTTAAATGCAATGATTTGCTGCTGCTGCTGCTGCT 234
 DB 707 TTTGATTCCTAAGCTTTTAAATGCAATGATTTGCTGCTGCTGCTGCTGCT 766
 QY 235 TTTAAAGATCATTATCAATTAATGAAGTATGATGTTAATATTAATGATGAC 293
 DB 767 ATATAGATCTGTTAATTAATTAATGAATTTCTGAG--CACTTAATGATGATGAT 825
 QY 294 ATGTTACGAGAAATTAATTAATTAATGAACCTTACATTAATTAATGAATG 353
 DB 826 ACATCAACAGAAATTTCTGTTAAAGTTATGAATGCTGCTGCTGCTGCTGCTG 885
 QY 354 TTGCTTCTTCTTTTCAAGCTGATGATTTCTTCTGCTGCTGCTGCTGCTGCT 413
 DB 886 -TATTTCTTCTTCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCT 944
 QY 414 AATTTATGATTTTAAATTAATTAATTAATGATGCTGCTGCTGCTGCTGCT 469
 DB 945 AATTTATGATTTTAAATTAATTAATTAATGATGCTGCTGCTGCTGCTGCT 1004
 QY 470 GTATCACTTAACATGGAGATGATTTAAATTTATCTATTTTGTGTCGAGAT 529
 DB 1005 TCATTAGTATTCATGGACATTTAAATTTCTATTTTGTGTTTCAATGCGGCGT 1064
 QY 530 AAT-TATGCTTATGATATTTAGAAATGCTGTAGAAATGCTCTAATATTTAAGTA 588
 DB 1065 GAATGCTGATCTTAAATATGAGATGACTTT-----TTATCAAGTA 1109

QY 589 GAATCCATTAAAGAGATGATGAGCCCTTTTGTGATGTCAGTTCTCCATCTCAAG 648
 DB 1110 GAATCTTTAAACAAGATGATGATGCTTTGATGATGTTAGTTGCTCCCAAG 1169
 QY 649 AGCGTCGTGACGAGCTTTCTTCCAAAAGAAATTCATATGGGTCAGAGATACCTCTAG 708
 DB 1170 AGCATTCGTGAGG-ATTCTTCCAGAAAGATTCACATGAGTGAAGGCGCTGCTAG 1228
 QY 709 GCTCCATTCACCTGCTGCTGCTTCTCCTCCTCAACGTTTCTGAAAAGTACTAGCA 768
 DB 1229 TCTCCGTGACGTTCTGAC-----TCTTCTCCTCACTCAACGTTTCTGAAAAGTACTAGCA 1283
 QY 769 ACTTGGGCTTATATTTTGAATATGCTGATGACATGAAAATATPACAGTGAAGTCT 828
 DB 1284 ACTGAGATATATTTTGAAGAACCATGATCAGTACATTAATATATTAACAATGCC- 1342
 QY 829 ATATTAATGACCTCCACATTTTAAATGATTTTAACTCTAATGAAATCATATCAT 888
 DB 1343 -CTATATTAATATTCGATCTACTTAAATATATGATATGATGCTGCTGATGCTAT 1400
 QY 889 CTGAGATATGTCATGTCATATTAATATGTAATATGATATCATTAAGTCAATAGA 948
 DB 1401 TGAATATG---CTGGTCATATTTAAATGTAATATATATGTT-ATTAGTCAATAGA 1456
 QY 949 ATAAATTTACAGCTAGATATATGAGAAATTCGAGGTGAGTAATCATAGAGCA 1008
 DB 1457 ATAAATACAGCTAGATATGTAAGAAACAT--TGATATGATTTAATGATATAGC- 1513
 QY 1009 GTGTATTAATACCTGATAGATTTATTTTCACTAATCATTTTCAATATATCATTTGTA 1068
 DB 1514 -ATTACCTTCACAAATTTTTCAGTTTCAATATTAATTAATATATATATATATAT 1568
 QY 1069 ACATCTTCAGTAAATTAATTAATATATATATATATATATATATATATATATATAG 1127
 DB 1569 AAATCTTCAGTAAATTAATATATATATATATATATATATATATATATATATATATAG 1628
 QY 1128 GTGCTTTCCACCTGGAAGAAAGACAAAGTAAATCTTCTGGAGAAAGGAACTTGTGA 1187
 DB 1629 GTGCTTTGCTGCTGAGAA--ACAAACAAATATCTTTGGAGAAAGGAACTCATGTA 1684
 QY 1188 AACCCACAAACAAAGCTCACTTT----- 1214
 DB 1685 AATACCAAAACAAAGCTCACTTTGTCAGCAAAATGTTTAAATATATATATATATAT 1744
 QY 1215 ----- 1214
 DB 1745 TTGATGATTAATAAT 1804
 QY 1215 -----TGACCAAAATTTTATGCTTGTGTTGATGATTAATATATATATAT 1256
 DB 1805 ACATTCGAGATGACATGACCAAAATTTTATACCTGCTGATATATATATATATAT 1863
 QY 1257 TAAATCTTCTCTATTTAGCAACCACTGTCATTAAGAAATTTTCAAGGTATAGACAC 1316
 DB 1864 AAAAATTTTCTCTATTTAGCAACCACTGTCATTAAGAAATTTTCAAGGTATAGACAC 1923
 QY 1317 ATTGAAGAACCAATCTGCCACGCGGAGAGCTGTGATTAATATATATATATATATATAT 1376
 DB 1924 ACTGAGAGTCAATCTGTCAGAGGAGGATCTGTGAAAGATATATATATATATATATAT 1983
 QY 1377 AATTAAGAACACATGAGCGCCCAAAAGTAAGTAAAGACATTTGCAAAATCTTAAGT 1436
 DB 1984 AATTAAGAACATATGAGCGCCCAAAAGTAAGTAAAGACATTTGCAAAATCTTAAGT 2043
 QY 1437 ATATTTGTCGATCTGCTGCTGTTTATTTTATTTTATCAAGAAATGACATTTCTTA 1496
 DB 2044 TGTCTGCTGCTG-----TGCCATATTTCTATGAAATTTGACAGTTTCTCTG 2085
 QY 1497 CAATATCT-----CTCTGTTCTTTTAAAGAAAGTGTGACGAGAAAGATGAGAG 1550
 DB 2086 TAAATACCTATGTCATTTTCTTTTCAAGAAAGTGTGAGAAAGAAAGACGAGAG 2145

QY 1551 TGACAAATCTCTAGACTACTGCAAGTATTTCTGCTGATTAATTAACCCGAGTGACAC 1610
 DB 2146 TAAACCAATTCCTAGACTACTGCAAGTATTTCTGCTGATTAATTAACCCGAGTGATAA 2205
 QY 1611 CGGAAGTTGAGAACCAACCGGCTTATTTGATGAGAAATTTTGAG 1657
 DB 2206 TAAAGATTGAGACTTAACTGTTTGTGTCAGCAAAATTTTGAG 2252

RESULT 4

US-09-322-409-80
 Sequence 80, Application US/09322409

Patent No. 6471957

GENERAL INFORMATION:

APPLICANT: Sim, Gek-Ke

APPLICANT: Yang, Shunlin

APPLICANT: Drelitz, Matthew J.

APPLICANT: Wonderling, Ramani S.

TITLE OF INVENTION: CANINE AND FELINE IMMUNOREGULATORY PROTEINS, NUCLEIC

FILE REFERENCE: IM-2-C1

CURRENT APPLICATION NUMBER: US/09/322,409

CURRENT FILING DATE: 1999-05-28

EARLIER APPLICATION NUMBER: 60/087,306

EARLIER FILING DATE: 1998-05-29

NUMBER OF SEQ ID NOS: 154

SOFTWARE: PatentIn Ver. 2.0

SEQ ID NO 80

LENGTH: 610

TYPE: DNA

ORGANISM: Canis familiaris

FEATURE:

NAME/KEY: CDS

LOCATION: (29)..(430)

US-09-322-409-80

Query Match 10.4%; Score 171.8; DB 4; Length 610;

Best Local Similarity 93.7%; Pred. No. 6.7e-31;

Matches 179; Conservative 0; Mismatches 12; Indels 0; Gaps 0;

QY 1 AGGCAAAACATGTAACATTTGAGAGCTATGAGAAATGCTGTAATTTGAGTTGCTAGCTC 60
 DB 3 AGGCAAAACATGTAACATTTGAGAGCTATGAGAAATGCTGTAATTTGAGTTGCTAGCTC 62
 QY 61 TTGGGGCTGCTATGTTTCTGCTGCTGCTGTAAGAAATCCCATGAATAGACTGTGAG 120
 DB 63 TTGGGGCTGCTATGTTTCTGCTGCTGCTGTAAGAAATCCCATGAATAGACTGTGAG 122
 QY 121 AGACCTTGACATGCTCTCCATCATGATGAATCTGGCTGATAGGCGATAGGCTAATTTCT 180
 DB 123 AGACCTTGACATGCTCTCCATCATGATGAATCTGGCTGATAGGCGATAGGCGAATCTGATGA 182
 QY 181 TTTTGAATCTCT 191
 DB 183 TTCTACTCTCT 193

RESULT 5

US-09-322-409-82/C
 Sequence 82, Application US/09322409

Patent No. 6471957

GENERAL INFORMATION:

APPLICANT: Sim, Gek-Ke

APPLICANT: Yang, Shunlin

APPLICANT: Drelitz, Matthew J.

APPLICANT: Wonderling, Ramani S.

TITLE OF INVENTION: CANINE AND FELINE IMMUNOREGULATORY PROTEINS, NUCLEIC

FILE REFERENCE: IM-2-C1

CURRENT APPLICATION NUMBER: US/09/322,409

CURRENT FILING DATE: 1999-05-28

EARLIER APPLICATION NUMBER: 60/087,306

EARLIER FILING DATE: 1998-05-29

NUMBER OF SEQ ID NOS: 154
SOFTWARE: Patentin Ver. 2.0
SEQ ID NO: 82
LENGTH: 610
TYPE: DNA
ORGANISM: Canis familiaris
US-09-322-409-82

Query Match 10.4%; Score 171.8; DB 4; Length 610;
Best Local Similarity 93.7%; Pred. No. 6.7e-31;
Matches 179; Conservative 0; Mismatches 12; Indels 0; Gaps 0;

QY 1 AGGCAACACTGAACTTTCAGAGCTATGAGATGCTTGAATTTGATTGCTAGCTC 60
DB 608 AGGCAACACTGAACTTTCAGAGCTATGAGATGCTTGAATTTGATTGCTAGCTC 549
QY 61 TTGGGGCTGCTATGTTTCTGCTTTGCTGTAGAAAATCCCATGAATAGACTGGTGCGAG 120
DB 548 TTGGGGCTGCTATGTTTCTGCTTTGCTGTAGAAAATCCCATGAATAGACTGGTGCGAG 489
QY 121 AGACTTGACACTGCTCTCCACTCATGCACTTGGCTGATAGGGGATGGGTAATTTTCT 180
DB 488 AGACCTTGACACTGCTCTCCACTCATGCACTTGGCTGATAGGGGATGGGTAATTTTCT 429
QY 181 TTTGATTCTT 191
DB 428 TTCTACTCTT 418

RESULT 6

US-09-451-527-80
Sequence 80, Application US/09451527
Patent No. 6482403
GENERAL INFORMATION:
APPLICANT: Sim, Gek-Kee
APPLICANT: Yang, Shumin
APPLICANT: Drelitz, Matthew J.
APPLICANT: Wonderling, Ramani S.
TITLE OF INVENTION: CANINE AND FELINE IMMUNOREGULATORY PROTEINS, NUCLEIC
FILE REFERENCE: IM-2-C2
CURRENT APPLICATION NUMBER: US/09/451,527
CURRENT FILING DATE: 1999-12-01
EARLIER APPLICATION NUMBER: 09/322,409
EARLIER FILING DATE: 1999-05-28
EARLIER APPLICATION NUMBER: 60/087,306
EARLIER FILING DATE: 1998-05-29
NUMBER OF SEQ ID NOS: 174
SOFTWARE: Patentin Ver. 2.0
SEQ ID NO: 80
LENGTH: 610
TYPE: DNA
ORGANISM: Canis familiaris
FEATURE:
NAME/KEY: CDS
LOCATION: (29)
US-09-451-527-80

Query Match 10.4%; Score 171.8; DB 4; Length 610;
Best Local Similarity 93.7%; Pred. No. 6.7e-31;
Matches 179; Conservative 0; Mismatches 12; Indels 0; Gaps 0;

QY 1 AGGCAACACTGAACTTTCAGAGCTATGAGATGCTTGAATTTGATTGCTAGCTC 60
DB 3 AGGCAACACTGAACTTTCAGAGCTATGAGATGCTTGAATTTGATTGCTAGCTC 62
QY 61 TTGGGGCTGCTATGTTTCTGCTTTGCTGTAGAAAATCCCATGAATAGACTGGTGCGAG 120
DB 63 TTGGGGCTGCTATGTTTCTGCTTTGCTGTAGAAAATCCCATGAATAGACTGGTGCGAG 122
QY 121 AGACTTGACACTGCTCTCCACTCATGCACTTGGCTGATAGGGGATGGGTAATTTTCT 180
DB 123 AGACCTTGACACTGCTCTCCACTCATGCACTTGGCTGATAGGGGATGGGTAATTTTCT 182

QY 181 TTTGATTCTT 191
DB 183 TTCTACTCTT 193

RESULT 7

US-09-451-527-82/c
Sequence 82, Application US/09451527
Patent No. 6482403
GENERAL INFORMATION:
APPLICANT: Sim, Gek-Kee
APPLICANT: Yang, Shumin
APPLICANT: Drelitz, Matthew J.
APPLICANT: Wonderling, Ramani S.
TITLE OF INVENTION: CANINE AND FELINE IMMUNOREGULATORY PROTEINS, NUCLEIC
FILE REFERENCE: IM-2-C2
CURRENT APPLICATION NUMBER: US/09/451,527
CURRENT FILING DATE: 1999-12-01
EARLIER APPLICATION NUMBER: 09/322,409
EARLIER FILING DATE: 1999-05-28
EARLIER APPLICATION NUMBER: 60/087,306
EARLIER FILING DATE: 1998-05-29
NUMBER OF SEQ ID NOS: 174
SOFTWARE: Patentin Ver. 2.0
SEQ ID NO: 82
LENGTH: 610
TYPE: DNA
ORGANISM: Canis familiaris
US-09-451-527-82

Query Match 10.4%; Score 171.8; DB 4; Length 610;
Best Local Similarity 93.7%; Pred. No. 6.7e-31;
Matches 179; Conservative 0; Mismatches 12; Indels 0; Gaps 0;

QY 1 AGGCAACACTGAACTTTCAGAGCTATGAGATGCTTGAATTTGATTGCTAGCTC 60
DB 608 AGGCAACACTGAACTTTCAGAGCTATGAGATGCTTGAATTTGATTGCTAGCTC 549
QY 61 TTGGGGCTGCTATGTTTCTGCTTTGCTGTAGAAAATCCCATGAATAGACTGGTGCGAG 120
DB 548 TTGGGGCTGCTATGTTTCTGCTTTGCTGTAGAAAATCCCATGAATAGACTGGTGCGAG 489
QY 121 AGACTTGACACTGCTCTCCACTCATGCACTTGGCTGATAGGGGATGGGTAATTTTCT 180
DB 488 AGACCTTGACACTGCTCTCCACTCATGCACTTGGCTGATAGGGGATGGGTAATTTTCT 429
QY 181 TTTGATTCTT 191
DB 428 TTCTACTCTT 418

RESULT 8

US-09-322-409-83
Sequence 83, Application US/09322409
Patent No. 6471957
GENERAL INFORMATION:
APPLICANT: Sim, Gek-Kee
APPLICANT: Yang, Shumin
APPLICANT: Drelitz, Matthew J.
APPLICANT: Wonderling, Ramani S.
TITLE OF INVENTION: CANINE AND FELINE IMMUNOREGULATORY PROTEINS, NUCLEIC
FILE REFERENCE: IM-2-C1
CURRENT APPLICATION NUMBER: US/09/322,409
CURRENT FILING DATE: 1999-05-28
EARLIER APPLICATION NUMBER: 60/087,306
EARLIER FILING DATE: 1998-05-29
NUMBER OF SEQ ID NOS: 154
SOFTWARE: Patentin Ver. 2.0
SEQ ID NO: 83
LENGTH: 402

TYPE: DNA
ORGANISM: Canis familiaris
US-09-322-409-83

Query Match
Best Local Similarity 92.7%; Pred. No. 7.6e-25; Length 402;
Matches 153; Conservative 0; Mismatches 12; Indels 0; Gaps 0;

QY 27 ATGAGAAATGCTTGAATTTGAGTTTGTAGCTCTTGCGGCTGCTATGTTTCTGCTTT 86
DB 1 ATGAGAAATGCTTGAATTTGAGTTTGTAGCTCTTGCGGCTGCTATGTTTCTGCTTT 60
QY 87 GCTGTAGAAAATCCCATGAAATAGACTGTGCGCAGAGACTTGACACTGCTCTCCACTCAT 146
DB 61 GCTGTAGAAAATCCCATGAAATAGACTGTGCGCAGAGACTTGACACTGCTCTCCACTCAT 120
QY 147 CGAACTTGCTGATAGGCGATGGGTAATTTCTTTTGATTCCT 191
DB 121 CGAACTTGCTGATAGGCGATGGGTAATTTCTTTTGATTCCT 165

RESULT 9

US-09-322-409-84/C
Sequence 84, Application US/09322409
Patent No. 6471957

GENERAL INFORMATION:
APPLICANT: Yang, Gek-Kee
APPLICANT: Sim, Gek-Kee
APPLICANT: Drelitz, Matthew J.
APPLICANT: Wonderling, Ramani S.
TITLE OF INVENTION: CANINE AND FELINE IMMUNOREGULATORY PROTEINS, NUCLEIC
FILE REFERENCE: IM-2-C1
CURRENT APPLICATION NUMBER: US/09/322.409
CURRENT FILING DATE: 1999-05-28
EARLIER APPLICATION NUMBER: 60/087.306
EARLIER FILING DATE: 1998-05-29
NUMBER OF SEQ ID NOS: 154
SOFTWARE: Patentln Ver. 2.0
SEQ ID NO 84
LENGTH: 402
TYPE: DNA
ORGANISM: Canis familiaris
US-09-322-409-84

Query Match
Best Local Similarity 92.7%; Pred. No. 7.6e-25; Length 402;
Matches 153; Conservative 0; Mismatches 12; Indels 0; Gaps 0;

QY 27 ATGAGAAATGCTTGAATTTGAGTTTGTAGCTCTTGCGGCTGCTATGTTTCTGCTTT 86
DB 402 ATGAGAAATGCTTGAATTTGAGTTTGTAGCTCTTGCGGCTGCTATGTTTCTGCTTT 343
QY 87 GCTGTAGAAAATCCCATGAAATAGACTGTGCGCAGAGACTTGACACTGCTCTCCACTCAT 146
DB 342 GCTGTAGAAAATCCCATGAAATAGACTGTGCGCAGAGACTTGACACTGCTCTCCACTCAT 283
QY 147 CGAACTTGCTGATAGGCGATGGGTAATTTCTTTTGATTCCT 191
DB 282 CGAACTTGCTGATAGGCGATGGGTAATTTCTTTTGATTCCT 238

RESULT 10

US-09-451-527-83
Sequence 83, Application US/09451527
Patent No. 6482403

GENERAL INFORMATION:
APPLICANT: Sim, Gek-Kee
APPLICANT: Yang, Shumin
APPLICANT: Drelitz, Matthew J.
APPLICANT: Wonderling, Ramani S.
TITLE OF INVENTION: CANINE AND FELINE IMMUNOREGULATORY PROTEINS, NUCLEIC
FILE REFERENCE: ACID MOLECULES, AND USES THEREOF

FILE REFERENCE: IM-2-C2
CURRENT APPLICATION NUMBER: US/09/451.527
CURRENT FILING DATE: 1999-12-01

EARLIER APPLICATION NUMBER: 09/322.409
EARLIER FILING DATE: 1999-05-28
EARLIER APPLICATION NUMBER: 60/087.306
EARLIER FILING DATE: 1998-05-29
NUMBER OF SEQ ID NOS: 174
SOFTWARE: Patentln Ver. 2.0
SEQ ID NO 83
LENGTH: 402
TYPE: DNA
ORGANISM: Canis familiaris
US-09-451-527-83

Query Match
Best Local Similarity 92.7%; Pred. No. 7.6e-25; Length 402;
Matches 153; Conservative 0; Mismatches 12; Indels 0; Gaps 0;

QY 27 ATGAGAAATGCTTGAATTTGAGTTTGTAGCTCTTGCGGCTGCTATGTTTCTGCTTT 86
DB 1 ATGAGAAATGCTTGAATTTGAGTTTGTAGCTCTTGCGGCTGCTATGTTTCTGCTTT 60
QY 87 GCTGTAGAAAATCCCATGAAATAGACTGTGCGCAGAGACTTGACACTGCTCTCCACTCAT 146
DB 61 GCTGTAGAAAATCCCATGAAATAGACTGTGCGCAGAGACTTGACACTGCTCTCCACTCAT 120
QY 147 CGAACTTGCTGATAGGCGATGGGTAATTTCTTTTGATTCCT 191
DB 121 CGAACTTGCTGATAGGCGATGGGTAATTTCTTTTGATTCCT 165

RESULT 11

US-09-451-527-84/C
Sequence 84, Application US/09451527
Patent No. 6482403

GENERAL INFORMATION:
APPLICANT: Sim, Gek-Kee
APPLICANT: Yang, Gek-Kee
APPLICANT: Drelitz, Matthew J.
APPLICANT: Wonderling, Ramani S.
TITLE OF INVENTION: CANINE AND FELINE IMMUNOREGULATORY PROTEINS, NUCLEIC
FILE REFERENCE: IM-2-C2
CURRENT APPLICATION NUMBER: US/09/451.527
CURRENT FILING DATE: 1999-12-01
EARLIER APPLICATION NUMBER: 09/322.409
EARLIER FILING DATE: 1999-05-28
EARLIER APPLICATION NUMBER: 60/087.306
EARLIER FILING DATE: 1998-05-29
NUMBER OF SEQ ID NOS: 174
SOFTWARE: Patentln Ver. 2.0
SEQ ID NO 84
LENGTH: 402
TYPE: DNA
ORGANISM: Canis familiaris
US-09-451-527-84

Query Match
Best Local Similarity 92.7%; Pred. No. 7.6e-25; Length 402;
Matches 153; Conservative 0; Mismatches 12; Indels 0; Gaps 0;

QY 27 ATGAGAAATGCTTGAATTTGAGTTTGTAGCTCTTGCGGCTGCTATGTTTCTGCTTT 86
DB 402 ATGAGAAATGCTTGAATTTGAGTTTGTAGCTCTTGCGGCTGCTATGTTTCTGCTTT 343
QY 87 GCTGTAGAAAATCCCATGAAATAGACTGTGCGCAGAGACTTGACACTGCTCTCCACTCAT 146
DB 342 GCTGTAGAAAATCCCATGAAATAGACTGTGCGCAGAGACTTGACACTGCTCTCCACTCAT 283
QY 147 CGAACTTGCTGATAGGCGATGGGTAATTTCTTTTGATTCCT 191
DB 282 CGAACTTGCTGATAGGCGATGGGTAATTTCTTTTGATTCCT 238

RESULT 12

US-09-371-615A-1
Sequence 1, Application US/09371615A
Patent No. 6537781
GENERAL INFORMATION:
APPLICANT: IDEXX LABORATORIES
TITLE OF INVENTION: METHODS AND COMPOSITIONS CONCERNING
TITLE OF INVENTION: CANINE INTERLEUKIN 5
FILE REFERENCE: 03604001700US00
CURRENT APPLICATION NUMBER: US/09/371.615A
CURRENT FILING DATE: 1999-08-10
NUMBER OF SEQ ID NOS: 8
SOFTWARE: FastSeq for Windows Version 3.0
SEQ ID NO 1
LENGTH: 405
TYPE: DNA
ORGANISM: Canis familiaris
US-09-371-615A-1

Query Match 8.8%; Score 145.8; DB 4; Length 405;
Best Local Similarity 92.7%; Pred. No. 7.6e-25;
Matches 153; Conservative 0; Mismatches 12; Indels 0; Gaps 0;

Qy 27 ATGAGAAATGCTTCTGAATTTGAGTTGCTAGCTCTTGGGGGCTATGTTTCCCTT 86

Db 1 ATGAGAAATGCTTCTGAATTTGAGTTGCTAGCTCTTGGGGGCTATGTTTCCCTT 60

Qy 87 GCTGTAGAAAATCCCATGATAGCTGTGGCAGACCTTGACACTGCTCCACTCAT 146

Db 61 GCTGTAGAAAATCCCATGATAGCTGTGGCAGACCTTGACACTGCTCCACTCAT 120

Qy 147 CGAACTGGCTGATAGCGGATGCGGTAATTTCTTTTGAATTCCT 191

Db 121 CGAACTGGCTGATAGCGGATGCGGTAATTTCTTTTGAATTCCT 165

RESULT 13

US-09-322-409-85
Sequence 85, Application US/09322409
Patent No. 6471957
GENERAL INFORMATION:
APPLICANT: Sim, Gek-Kee
APPLICANT: Yang, Shumin
APPLICANT: Drelitz, Matthew J.
TITLE OF INVENTION: CANINE AND FELINE IMMUNOREGULATORY PROTEINS, NUCLEIC
TITLE OF INVENTION: ACID MOLECULES, AND USES THEREOF
FILE REFERENCE: IM-2-C1
CURRENT APPLICATION NUMBER: US/09/322.409
CURRENT FILING DATE: 1999-05-28
EARLIER APPLICATION NUMBER: 60/087.306
EARLIER FILING DATE: 1998-05-29
NUMBER OF SEQ ID NOS: 154
SOFTWARE: PatentIn Ver. 2.0
SEQ ID NO 85
LENGTH: 345
TYPE: DNA
ORGANISM: Canis familiaris
FEATURE:
NAME/KEY: CDS
LOCATION: (1)..(345)
US-09-322-409-85

Query Match 7.9%; Score 131.6; DB 4; Length 345;
Best Local Similarity 97.1%; Pred. No. 1.6e-21;
Matches 134; Conservative 0; Mismatches 4; Indels 0; Gaps 0;

Qy 1274 AGCACCAGTGTGATTAAGAGTTTTCAGGGTATAGACATTTGAAGAACCAACTG 1333

Db 119 ATCACCAGTGTGATTAAGAGTTTTCAGGGTATAGACATTTGAAGAACCAACTG 178

Qy 1334 CCACAGGGAGGCTGTGATTAAGTATTCACAACTGTTTATATATAAGACACATAG 1393

Db 179 CCACAGGGAGGCTGTGATTAAGTATTCACAACTGTTTATATATAAGACACATAG 238

Qy 1394 AGCCCAAAAAGTAACTT 1411

Db 239 AGCCCAAAAAGTAACTT 256

RESULT 14

US-09-322-409-87/c
Sequence 87, Application US/09322409
Patent No. 6471957
GENERAL INFORMATION:
APPLICANT: Sim, Gek-Kee
APPLICANT: Yang, Shumin
APPLICANT: Drelitz, Matthew J.
TITLE OF INVENTION: CANINE AND FELINE IMMUNOREGULATORY PROTEINS, NUCLEIC
TITLE OF INVENTION: ACID MOLECULES, AND USES THEREOF
FILE REFERENCE: IM-2-C1
CURRENT APPLICATION NUMBER: US/09/322.409
CURRENT FILING DATE: 1999-05-28
EARLIER APPLICATION NUMBER: 60/087.306
EARLIER FILING DATE: 1998-05-29
NUMBER OF SEQ ID NOS: 154
SOFTWARE: PatentIn Ver. 2.0
SEQ ID NO 87
LENGTH: 345
TYPE: DNA
ORGANISM: Canis familiaris
US-09-322-409-87

Query Match 7.9%; Score 131.6; DB 4; Length 345;
Best Local Similarity 97.1%; Pred. No. 1.6e-21;
Matches 134; Conservative 0; Mismatches 4; Indels 0; Gaps 0;

Qy 1274 AGCACCAGTGTGATTAAGAGTTTTCAGGGTATAGACATTTGAAGAACCAACTG 1333

Db 227 ATCACCAGTGTGATTAAGAGTTTTCAGGGTATAGACATTTGAAGAACCAACTG 168

Qy 1334 CCACAGGGAGGCTGTGATTAAGTATTCACAACTGTTTATATATAAGACACATAG 1393

Db 167 CCACAGGGAGGCTGTGATTAAGTATTCACAACTGTTTATATATAAGACACATAG 108

Qy 1394 AGCCCAAAAAGTAACTT 1411

Db 107 AGCCCAAAAAGTAACTT 90

RESULT 15

US-09-451-527-85
Sequence 85, Application US/09451527
Patent No. 6482403
GENERAL INFORMATION:
APPLICANT: Sim, Gek-Kee
APPLICANT: Yang, Shumin
APPLICANT: Drelitz, Matthew J.
TITLE OF INVENTION: CANINE AND FELINE IMMUNOREGULATORY PROTEINS, NUCLEIC
TITLE OF INVENTION: ACID MOLECULES, AND USES THEREOF
FILE REFERENCE: IM-2-C2
CURRENT APPLICATION NUMBER: US/09/451.527
CURRENT FILING DATE: 1999-12-01
EARLIER APPLICATION NUMBER: 09/322.409
EARLIER FILING DATE: 1999-05-28
EARLIER APPLICATION NUMBER: 60/087.306
EARLIER FILING DATE: 1998-05-29
NUMBER OF SEQ ID NOS: 174
SOFTWARE: PatentIn Ver. 2.0
SEQ ID NO 85
LENGTH: 345
TYPE: DNA

; ORGANISM: Canis familiaris
; FEATURE:
; NAME/KEY: CDS
; LOCATION: (1)..(345)
US-09-451-527-85

Query Match 7.9%; Score 131.6; DB 4; Length 345;
Best Local Similarity 97.1%; Pred. No. 1.6e-21;
Matches 134; Conservative 0; Mismatches 4; Indels 0; Gaps 0;

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Db	179	CCCAAGGGGAGGCTGTGATTAACCTATTCCAAACCTGCTTTAATAAAGAACACATAG	238
QY	1394	AGCGCCAAAAAGTAAGTT	1411
Db	239	AGCGCCAAAAAGTAAGTT	256

Search completed: August 7, 2005, 18:43:12
Job time : 340.649 secs

GenCore version 5.1.6
Copyright (c) 1993 - 2005 Compugen Ltd.

OM nucleic - nucleic search, using sw model

Run on: August 7, 2005, 18:32:58 ; Search time 7988.1 Seconds
(without alignments)
10057.309 Million cell updates/sec

Title: US-10-787-382-18
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Scoring table: IDENTITY NUC
Gapop 10.0 , Gapext 1.0

Searched: 4708233 seqs, 24227607955 residues
Total number of hits satisfying chosen parameters: 9416466

Minimum DB seq length: 0
Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries

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2: gb_hcg:*
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4: gb_om:*
5: gb_ov:*
6: gb_pat:*
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11: gb_sbs:*
12: gb_sy:*
13: gb_un:*
14: gb_vl:*

Pred. No. is the number of results predicted by chance to have a
score greater than or equal to the score of the result being printed,
and is derived by analysis of the total score distribution.

SUMMARIES

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10	600.6	36.2	3230	6	BD1640
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14	599	36.1	3230	6	E13592
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22	245.2	14.8	450	4	OA1LV2	U17052 Ovis aries
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39	145.8	8.8	402	6	AR241538	AR241538 Sequence
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ALIGNMENTS

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DEFINITION Canis familiaris interleukin-5 gene, complete cds.
ACCESSION AF331920
VERSION AF331920.1 GI:15919182
KEYWORDS
SOURCE
ORGANISM
Canis familiaris (dog)
Canis familiaris
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Carnivora; Fissipedia; Canidae; Canis.
REFERENCE
Yang, S., Sellins, K.S., Weber, E. and McCall, C.
Canine interleukin-5: molecular characterization of the gene and
expression of biologically active recombinant protein
J. Interferon Cytokine Res. 21 (6), 361-367 (2001)
JOURNAL
MEDLINE
PUBMED
21334408
11440633
2 (bases 1 to 1658)
AUTHORS
Yang, S.
TITLE
Direct Submission
JOURNAL
Prospect Parkway, Ft Collins, CO 80525, USA
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3' UTR
ORIGIN

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RESULT 2
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LOCUS
DEFINITION
ACCESSION
VERSION
KEYWORDS
SOURCE
ORGANISM
REFERENCE
AUTHORS
TITLE
JOURNAL
MEDLINE
PUBMED
COMMENT
FEATURES
Source

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 Db 1809 ACATTCGAGATGAGCAATGAGCAAAATTTTATACCTTGCTGATTAATTTGCA-TTTT 1867
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 QY 1317 ATTGAAGACCAAACTGCGCCACGGGAGAGCTGTGATTAATCTATTCAAAATCTGCTTT 1376
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 QY 1377 AATTAAGAACACATAGACGGCCAAAAGTAAAGATTGACATTTGGCAAAACTTAAGT 1436
 Db 1988 AATTAAGAACATACATAGACGGCCAAAAGTAAAGTTACACACTT-----CAATGAGACT 2042
 QY 1437 AATTTGTCGACCTCGCTGTTTCTTTTCTTTTCTTTTACAAATTAAGTACAGTTCTTA 1496
 Db 2043 AATTTGTCGCTGCTGCTGCTATTTCTAT-----GGAATTAACAGTTTCTTG 2088
 QY 1497 CAATATCT-----CCTCTGTTCTTTTAAACAGAAAAGGTGACAGAAAAGATGAGAG 1550
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 QY 1551 TGACAAAGTTCTTGACTACTCTGCAAGTATTTCTTGTATTAACACCGAGTGAAC 1610
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AP353265

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 ACCESSION AF353265
 VERSION AF353265.1 GI:13346490

KEYWORDS

SOURCE Homo sapiens (human)
 ORGANISM Homo sapiens (human)

REFERENCE

AUTHORS Mammalia; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Primates; Catarrhini; Hominoidea; Homo. Rieder, M.J., Carrington, D.P., Chung, M.-W., Lee, K.L., Poel, C.L., Yi, Q. and Nickerson, D.A.
 TITLE Direct Submission
 JOURNAL Submitted (25-FEB-2001) Molecular Biotechnology, University of Washington, 1705 NE Pacific, Seattle, WA 98195, USA
 COMMENT To cite this work please use: SeattleSNPs, NHLBI Program for Genomic Applications, UM-PHRC, Seattle, WA (URL: <http://pga.mbt.washington.edu>).
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Oy	1188	AACCCCAANAACAAAGCTTAACCTT-----	1213
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Db	2991	AAAAATTTTCTCATTTAGACACCAACTGTGACATCGAAGAAATCTTTCAAGGAATATGCGAC	3050
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Db	3051	ACTGGAGAGTCAAACTGTGCMAAGGGGGTACTGTGAAAAGACTATTTCAAAAACTGTCCCT	3110
Oy	1377	AATTAAGAACACATTAAGGCGCCAAAAGTTAAGTTAAGACTTTGGCAAAACCTTAAGT	1436
Db	3111	AATTAAGAAAATACATTTGACGCGCAAAAAGTAAGTTACACACATTT-----CAATGGAAGCT	3165
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Oy	1497	CAATATCT-----CTCTGTTCCTTTTAACGAAAAGGTGTGCAGAGAAAGATGAGAG	1550
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QY 235 -TTTAAAGATCCATTAATTAATGAAGTAAATGATGATTAATTAATTAATGATGTAAC 293
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QY 294 ATGTACTCAGAGATTAATTAATGAAGTAAATGATGATTAATTAATTAATGAATG 353
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QY 530 AAAT-TATGCTTAATTAATTAATTAATGATTAATGATTAATGATTAATGATTAATGATTA 588
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DEFINITION BD247730
ACCESSION BD247730.1 GI:33057500
VERSION JP 2002539846-A/78.
KEYWORDS
SOURCE Homo sapiens (human)
ORGANISM Homo sapiens
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Primates; Catarrhini; Homnidae; Homo.
REFERENCE
1 (bases 1 to 3230)
AUTHORS Dean,N.M., Karrae,U.G. and McKay,R.
TITLE Antisense modulation of interleukin-5 signal transduction
JOURNAL Patent: JP 2002539846-A 78 26-NOV-2002;
ISIS PHARMACEUTICALS INC
OS Homo sapiens (human)
PN JP 2002539846-A/78
PD 26-NOV-2002
PR 17-MAR-2000 JP 2000608790
PI 26-MAR-1999 US 09/280799
PC C12N15/09,A61K31/711,A61K48/00,A61P11/06,A61P29/00,A61P35/00,
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Key Location/Qualifiers
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FEATURES
Source

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 Qy 1317 ATTGAAGAACCAAACTGCCACGGGAGCTGTGATTAATCTATTCCTT 1376
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 Qy 1377 AATAAAGAACATAGAGAGCGCAAAAGTAAAGACTTGGCAAAATCTTAAGT 1436
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 Qy 1497 CAATATCT-----CCTCTGTTCTTTTAAACAGAAAGGTGACAGAAAGTGAAG 1550
 Db 2086 TAATATCTATTTGTATTTTCTTTTTCAGAAAGAGTGTGAGAAAGAGACGAGAG 2145
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 VERSION E01640.1 GI:2169893
 KEYWORDS JP 1988185387-A/2.
 SOURCE Homo sapiens (human)
 ORGANISM Homo sapiens
 Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
 Mammalia; Eubacteria; Primates; Catarrhini; Homiidae; Homo.
 REFERENCE 1 (bases 1 to 3230)
 AUTHORS Honshio,Y., Takatsu,K. and Eba,S.
 TITLE HUMAN B CELL DIFFERENTIATION FACTOR
 JOURNAL HONSHIO YU
 HONSHIO YU

COMMENT OS Human
 PN JP 1988185387-A/2
 PD 30-JUL-1988
 PF 21-SEP-1987 JP 1987236842
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 PI HONSHIO YU, TAKATSU KIYOSHI, EBA SEBERINSON PC
 C12N15/00,C07K13/00,C12N5/00,C12P21/02,(C12N5/00,C12R1:91); CC
 strandness: Double;
 CC topology: Linear;
 CC hypothetical: No;
 CC anti-sense: No;
 CC *source: tissue type=fetal liver;
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 Best Local Similarity 67.8%; Pred. No. 6.9e-95;
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 Qy 121 AGACCTTGACAGCTGCTCTCCACTATGGAAGTGTGCTGATAGGCGATGAGTATTTCT 180
 Db 647 AGACCTTGACAGCTGCTCTCTACTCATGAACTGTGCTGATAGCCAAATGAGGTAAATTTCT 706
 Qy 181 TTTGATTTCTCAAGCTCTTAAATGCAATGGGTAAATGGTGTGCTAGT----- 234
 Db 707 TTATGATTTCTCAAGCTCTGTAAGTGAATGATGATGATGATGATGATGATGATGAT 766
 Qy 235 -TTTAAAGATCATTAATCAATATGAATGATGATGATGATGATGATGATGATGATGATGAT 293
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 Qy 354 TTGTTCTCTTCTTTTTCAGAGCTGATGATGATGATGATGATGATGATGATGATGATGATG 413
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Db	1110	GAATCCTTTAA	CAAGTGGATTAGGCTCTTTGGTATGTGTAGTTGGCTTCCCAAG	1169
Oy	649	AGCGTCGTGTA	GCGATCTCTTCCAAAAGAAATTCATTTGGGTCAGAGATATCTTCAG	708
Db	1170	AGCATCGTGA	CGG-ATTCCTTCCAGAAAGATCCACCTAGTGAAGGGGCGCTGAG	1228
Oy	709	GCTCCATTCAC	CTCTGTGGCTTCCACCTCAACGTTTTCTGAAAGTACTAGCA	768
Db	1229	TCTCCGTGCA	GTTCGAC-----TCCTTCTCACTCAACGCTTCTGAAAGTATAGCA	1283
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Oy	829	ATATTAATAG	CACTTCCACATTTTAATGATTTTAACTCTAATGGAATCATATACAT	888
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Db	1514	----ATTACAC	CTTCCAAACATTTTTTTCAGTTACATTAATTAAGTTATATCTTTATA	1568
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Db	1569	AAACTCTCA	GTAAATATATAGCTTCACTACCTTTTGAATAATTTATCTTAATATGTG	1628
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Db	1629	GTGTTGTG	CTGTGAA-----ACAAACAAAACCTTTGGAGAAAGGAACTCATGTA	1684
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Oy	1497	CAATATCT--	-----CTCTGTCTTTTAAACAGAAAGGTGTGACAGAGAAAGATGGAAG	1550

Db	2086	TAATACGATTTGTCATTTTCTTTTTCACAGAAAAGTGTGGAGAAAGAAAGACGGAGAG	2145
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Db	2146	TAAACCAATTCCTAGACTACTCGAAGAGTTCCTTGCTGTATATAACACCGAGTGAATTA	2205
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DEFINITION	Sequence 1 from patent US 5324640.	linear	PAT 03-SEP-2003
ACCESSION	AR364536		
VERSION	AR364536.1	GI:34427297	
KEYWORDS			
SOURCE	Unknown.		
ORGANISM	Unknown.		
REFERENCE	Unclassified.		
AUTHORS	1 (bases 1 to 3230)		
TITLE	Honjo,T., Takatsu,K. and Severinson,E.		
JOURNAL	Human B-cell differentiation factor and process of producing said		
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Best Local Similarity	67.8%; Pred. No. 6.9e-99;		
Matches 1212; Conservative	0; Mismatches 384; Indels 191; Gaps 19;		
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Qy	354	TTGTTTCTCTTTCTTTTTCAGAACTGATGATTTCTTCACTCTCGTAAAAATTAATTAATG	413
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Db	1005	TCATTAAGTATCATTTGGAACATTAATTAATTTCTATATTTTGTTCATATGGGTGGCTGT	1064
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DEFINITION H.sapiens gene for B cell differentiation factor 1.
ACCESSION X12706
VERSION X12706.1 GI:29392
KEYWORDS B-cell differentiation factor.
SOURCE Homo sapiens (human)
ORGANISM Homo sapiens
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Primates; Catarrhini; Homnidae; Homo.
REFERENCE 1 (bases 1 to 3230)
AUTHORS Honjo,T., Taketu,K. and Severtinson,E.
JOURNAL Unpublished
COMMENT see X12705 for ph.IL-5-30 cDNA sequence;
extent of mRNA is given according ph.IL-5-30 cDNA; Data kindly
supplied by Derynnt Biotechnology Abstracts: Patent (EP_0_261_625,
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ORIGIN
Query Match 36.2%; Score 600.6; DB 9; Length 3230;
Best Local Similarity 67.8%; Pred. No. 6,9e-99;
Matches 1212; Conservative 0; Mismatches 384; Indels 191; Gaps 19;

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QY 1 AGCGAAACATGTAATTCAGAGCTATGAGATGCTTCTGAATTTGAGTTTGTCTACTC 60
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QY 181 TTTTGGATTCCTACAGCTTTTAAATGCAATGGGTAAATGGTGTGGTGGTAAATTTTCT 234
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DB 2146 TAAACCAATCTCAGACTACCTGCAAGAGTTTCTGCTGTAATTAATTAATTAATTA 2205
QY 1611 CGAAGTTGAGAAACAAACGCTTATTTGATGAGAAATTTTGGAG 1657
DB 2206 TAGAAAGTTGAGACTAAACGTTTGTGACGCAAAAGATTTTGGAG 2252

RESULT 13
HUMIL5 3230 bp DNA linear PRI 21-AUG-1995
LOCUS Human interleukin 5 (IL-5) gene, complete cde.
DEFINITION J03478
ACCESSION J03478.1 GI:186338
VERSION J03478.1
KEYWORDS colony stimulating factor; interleukin 5.
SOURCE Homo sapiens (human)
ORGANISM Homo sapiens
Molecular cloning and structure of the human interleukin-5 gene
Tanabe, T., Konishi, M., Mizuta, T., Noma, T. and Honjo, T.
J. Biol. Chem. 262 (34), 16580-16584 (1987)
PUBMED 88059042
REFERENCE 2 (bases 1 to 3230)
TANABE, T.
Direct Submision
Submitted (09-SEP-1987) T. Tanabe, Department of Medical Chemistry,
Kyoto University Faculty of Medicine, Japan
Location/Qualifiers
1. 3230
/organism="Homo sapiens"

```


Db 1924 ACTGAGAGTCACAACTGTGCAAGGGGTACTGTGCAAGAAAGACTATTCATAAACTTTCCTT 1983
Qy 1377 AATTAAGAAACACATAGAGGCCCAAAAGTAAGTTAAAGACATTTGGCAAAAACCTTAAGT 1436
Db 1984 AATTAAGAAATACCTTGAACGGCCAAAAGTAAGTTACACATTCATTAAGAGCTATATT 2043
Qy 1437 ATATTTGTCGTGACTGCTGCTGTTTCTTTTCTTTTTCACAGATTCAGACAGTTTCCTA 1496
Db 2044 TGTCTGCTGCTG-----TGCCTATTTCTATGAAATTCAGATTCCTG 2085
Qy 1497 CAATATCT-----CCTCTGTTCTTTTAAAGAAAGTGTGCGAGAAAGATGAGAG 1550
Db 2086 TAATACCTATTCATTCATTTCTTTTTCACAGAAAGTGTGAGAAAGAAAGAGAGAG 2145
Qy 1551 TGAACAAAGTTCCTAGACTACCTGCAAGTATTTCTGTGTATTAACACGAGTGAACAC 1610
Db 2146 TAAACCAATTCCTAGACTACCTGCAAGATTTCTGTGTATTAACACGAGTGAATTA 2205
Qy 1611 CGGAAAGTTGAGAACAAACCGGCTTATTTGATGAGAAATTTGGAG 1657
Db 2206 TAGAAAGTTGAGACTAACTGTTTGTGAGAGCCAAAGATTTGGAG 2252

RESULT 14
E13592 3230 bp DNA linear PAT 27-Apr-1998
LOCUS gDNA encoding beta-cell differentiation factor,BCDF.
E13592
ACCESSION E13592
VERSION J1997215496-A/2.
KEYWORDS Homo sapiens (human)
SOURCE Homo sapiens
ORGANISM Homo sapiens
Eukaryote; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Primates; Catarrhini; Homnidae; Homo.
REFERENCE 1 (bases 1 to 3230)
AUTHORS Honshio, Y., Takatsu, K. and Eba, S.
TITLE PRODUCTION OF HUMAN B CELL DIFFERENTIATION FACTOR
JOURNAL Patent: JP 1997215496-A 2 19-Aug-1997;
HONSHIO YU
OS Homo sapiens (human)
PN JP 1997215496-A/2
PD 19-Aug-1997
PF 21-SEP-1987 JP 1996206192
PR 20-SEP-1986 JP 86P 223284
PI HONSHIO YU, TAKATSU KIYOSHI, EBA SEBERINSON PC
C12N15/09,A61K38/00,A61K38/00,A61K38/00,C07H21/04,C07K14/47, PC
C12N5/10
PC C12P21/02, (C12P21/02, C12R1.91);
CC strandedness: Double;
CC topology: Linear;
CC hypothetical: No;
CC anti-sense: No;
FH Key Location/Qualifiers
FH source 1..3230
FT 1./organism='Homo sapiens'
FT 5'UTR 1..552
FT exon 1..696
FT 1./number=1
FT intron 697..904
FT 1./number=1
FT exon 905..937
FT 1./number=2
FT intron 938..1882
FT 1./number=2
FT exon 1883..2011
FT 1./number=3
FT intron 2012..2117
FT 1./number=3
FT exon 2118..3230
FT 1./number=4
FT join(553..696,905..937,1883..2011,2118..2216)
FT CDS
FT product='BCDF'

FEATURES FT 3'UTR 2217..3230.
source Location/Qualifiers
1..3230
/organism="Homo sapiens"
/mol_type="genomic DNA"
/db_xref="taxon:9606"

ORIGIN
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Best Local Similarity 67.8%; Pred. No. 1,3e-28;
Matches 1211; Conservative 0; Mismatches 385; Indels 191; Gaps 19;
1 AGCAAAACACTGAACATTCAGAGCTATGAGAAATGCTTCGAAATTTGAGTTGCTAGCTC 60
527 AGCAAAACGAGAAACCTTCAGAGCCATGAGATGCTTCGATTTGAGTTGCTAGCTC 586
61 TTGGGCTGCTATGTTTTCGCTTGTGCTGTATGAAATTCACAGAAATTCAGAGTGGCAG 120
587 TTGGAGCTGCTAGGTATGCCATCCCAAGAAATTCACAGAAATTCAGAGTGGCAG 646
121 AGACCTTGACAGCTGCTCCACTCATGCACTTGCTGATAGGCGATGGGTAATTTCT 180
647 AGACCTTGACAGCTGCTTCTACTCATGCACTGCTGATAGGCGATGAGTAATTTCT 706
181 TTTGATTCCTACAGTCTTTTAAATGCAATGGTATGTTGTTGTTGCTAGTT----- 234
707 TTATGATTCCTACAGTCTGTAAGTGCATGTAATCATTTGATGTTCTTACTAT 766
Qy 235 -TTTAAAGATTCATTCATTAATGAAGTAAGAGTGTAAATTAATTAATGATGTAAC 293
767 ATATGAGATCTGTAAATTAATTAATTAATTAATTAATTAATTAATTAATTAATTAAT 825
Qy 294 ATGTTACTGAGAAATTAATTAATTAATTAATTAATTAATTAATTAATTAATTAATTA 353
826 ACATCAACGAGCAAACTTCGTTAAAGTATGAATGCTGCTGCTGCTGCTGCTGCTGCTG 885
Qy 354 TTGTTCTCTTCTTTTTCAGAACCTGATGTTCTTCTTCTGTAATTAATTAATTAATTA 413
886 -TATTTCTCTTCTCTCCAGACTGAGATTCCTGTTCTGTAATTAATTAATTAATTAATTA 944
Qy 414 AATTAATTAATTAATTAATTAATTAATTAATTAATTAATTAATTAATTAATTAATTA 469
945 AATTAATTAATTAATTAATTAATTAATTAATTAATTAATTAATTAATTAATTAATTA 1004
Qy 470 GTATCAGTTAACTGGAGATGATTAATTAATTAATTAATTAATTAATTAATTAATTAAT 529
1005 TCATTAATTAATTAATTAATTAATTAATTAATTAATTAATTAATTAATTAATTAAT 1064
Qy 530 AAT-TATGTCCTTAATTAATTAATTAATTAATTAATTAATTAATTAATTAATTAATTA 588
1065 GAATGCTGTAATTAATTAATTAATTAATTAATTAATTAATTAATTAATTAATTAAT 1109
Qy 589 GAATTCATTAAGAAAGGATTCAGGCTTTTGAATGTTGATGCTTCATCTCAAG 648
1110 GAATTCCTTAAGAAAGGATTAAGGCTTTTGAATGTTGATGCTTCATCTCAAG 1169
Qy 649 AGCTGCTGTCAGGCAATCTTCCAAAGAAATTCATTAATTAATTAATTAATTAATTAAT 708
1170 AGCATGCTGTCAGG-ATTCCTTCCAGAGAAATTCACACGATGAGAGGTTGGTGTAG 1228
Qy 709 GCTTCATTCACCTGCTGCTGTTGCTGCTTCACCTCAACGTTTTCGAAAGTACAGCA 768
1229 TCTCCGAGAGTCTGAC-----TCTTTCACCTCAACGTTTTCGAAAGTACAGCA 1283
Qy 769 ACTTGGGCTATATTTTAAATTAATTAATTAATTAATTAATTAATTAATTAATTAATTA 828
1284 ACTCAGATTAATTTTAAACCATGATCAGTAGAATTAATTAATTAATTAATTAATTAAT 1342
Qy 829 ATATTAATGCTACATTCACATATTAATTAATTAATTAATTAATTAATTAATTAATTA 888
1343 --CTATATTAATTAATTTGCTGATCTTAATTAATTAATTAATTAATTAATTAATTAAT 1400
Qy 889 CTGAGATGATGCTGCTATTAATTAATTAATTAATTAATTAATTAATTAATTAATTAAT 948


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QY 909 ATTAAAAATGTTAAAAATGATATCATTAGTCTAAATAGATAATAAATTACACAGCTAGAAC 968
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Db 696 ATTAAAAATGTTAAAAATGATATGTTATAGTCTAAATAGATAATAAATTACACAGCTAGAAC 755
    |||||
QY 969 TATACGAGAAATCTGAGGTGAGGTAAATCAGTAAGGCACTGTATATACCTGTAG 1028
    |||||
Db 756 TGTAGAAACACAT--TGATATGAGTTTAATGATTAATGC-----ATTACACTTCCAAA 807
    |||||
QY 1029 CATTTATTTTTCATTATTCATTTTATTCATTTATTCATTTGTAACACTTCTCAGTAAATATAT 1088
    |||||
Db 808 CATTTTTCAGTATACATATTAATTAATTAATCCTTTATTAATACTCTCAGTAAATCATAT 867
    |||||
QY 1089 AAACATCATTTACTTATGAT--AATTATAGCTTATAGTATAGGTGGTTTCCACCTGAAAA 1147
    |||||
Db 868 AAGCTCATCTACTTTTGAATAATTTTATCTTAATATGTGGTGTGTTGTTGCCAGAAA- 926
    |||||
QY 1148 GACACAGTAAAACTCTTGGGAGAAAGGAACTTGTGTAACCCCAAAACAAAGCTT 1207
    |||||
Db 927 ---ACAAACAAAAACCTTTGGAGAGGAACTCATGTAATACCAAAAAACAAAGCTT 983
    |||||
QY 1208 AACTTT----- 1213
    |||||
Db 984 AACTTTGGACCAAAATGTTTAAATATTTTATTTTAAATGATGAATTAATAAGTATA 1043
    |||||
QY 1214 -----TTG 1216
    |||||
Db 1044 TATATTTATGTGTACATATGATGTTTGAAGTATGATATACATTGCAAGATGCAATG 1103
    |||||
QY 1217 GACCAAAATTTTATGCTGTGTTGATGATTAATTTTAAATCTTCTCATTTAGC 1276
    |||||
Db 1104 GACCAAAATTTTATGCTGTGTTGATTAATTTGCA-TTTTAAAAATTTTCTCATTTAGC 1162
    |||||
QY 1277 ACCAATGTGCATTAAGAATTTTTCAGGGTATAGACACATGAGAGAACCAACTGCCC 1336
    |||||
Db 1163 ACCAATGTGCATTAAGAATTTTTCAGGGATTAAGCACCTGAGAGTCAAACTGTGC 1222
    |||||
QY 1337 ACCGGAGGCTGTGATTAACCTATTCAAAACTTGTCTTTAATTAAGAAACACATAGAGC 1396
    |||||
Db 1223 AAGGGGTAAGTGTGAAGAACTATTCAAAACTTGTCTTAATAAGAAATACATGACG 1282
    |||||
QY 1397 GCCAAAAAGTAAAGATTTGGCAAAACTTAAGTATATTGTCTGACTGTGCT 1456
    |||||
Db 1283 GCCAAAAAGTAAAGATTTACACATTT-----CAATGAAAGCTATATTGTCTGGCTGTGCT 1337
    |||||
QY 1457 GTTTTTTTTTTTTTTACAGAAATGACAGTTTCTCAATATCT-----CTCTG 1510
    |||||
Db 1338 ATTTCTAT-----GGAATTGACAGTTTCTGTAAATACCTATTTGCTATTTT 1383
    |||||
QY 1511 TTCTTTTAAAGAAAGGTGTGACAGAGAAAGATGAGAGTGAACAAAGTTCTAGACTAC 1570
    |||||
Db 1384 CTTTTCACAGAAAGGTGTGAGAGAAAGACGAGAGTAAACAAATTCCTAGACTAC 1443
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QY 1571 CTGCAAGTATTTCTTGTGTATTAACACCGAGTGAACCGGAAAGTTGAGAACAAACC 1630
    |||||
Db 1444 CTGCAAGGTTTCTTGTGTATGAACCGAGTGAATTAATGAAGAAAGTTGAGACTAAACT 1503
    |||||
QY 1631 GGCTTATTTGATGAGATTTTGAG 1657
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Db 1504 GGTGTTGTGACCAAGATTTTGAG 1530
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Job time : 8001.1 secs

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OM nucleic - nucleic search, using sw model

Run on: August 7, 2005, 19:25:03 ; Search time 1111.38 Seconds

(without alignments)
8831.282 Million cell updates/sec

Title: US-10-787-382-18

Perfect score: 1658

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Scoring table: IDENTITY NUC
Gapop 10.0 , Gapext 1.0

Searched: 4390206 seqs, 2959870667 residues

Total number of hits satisfying chosen parameters: 8780412

Minimum DB seq length: 0

Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%

Maximum Match 100%
Listing first 45 summaries

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13: geneseqn2004bs:*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

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1	634.6	38.3	3241	3	AAA34856 Human ade
2	634.6	38.3	3241	3	AAFP20978 Human low
3	634.6	38.3	3241	10	ABZ96672 Human nuc
4	634.6	38.3	4057	3	AA34858 Human ade
5	634.6	38.3	4057	3	AAFP20980 Human low
6	634.6	38.3	4057	10	ABZ96674 Human nuc
7	634.6	38.3	4057	11	ABD20523 Human pul
8	634.6	38.3	4057	11	ABD20522 Human pul
9	634.6	38.3	9738	6	AA315002 DNA encod
10	600.6	36.2	3230	1	AA818181 Entlre nu
11	600.6	36.2	3230	2	AAQ74056 Human int
12	600.6	36.2	3230	3	AACT73725 Human IL-
13	600.6	36.2	3230	8	ABX04379 Human int
14	600.6	36.2	3230	12	ADN12146 Human int
15	600.6	36.2	3230	12	ADN12146 Human int
16	272.6	16.4	700	4	AAH92592 Human int
17	221.6	13.0	700	4	AAH92594 Human int
18	215.4	13.0	700	4	AAH92591 Human int
19	215.4	13.0	700	4	AAH92593 Human int
20	205.2	12.4	1395	1	AAH71243 Sequence

21	171.8	10.4	610	3	AAZ55546
22	171.8	10.4	610	3	AAZ55547
23	150.6	9.1	5397	6	ABL33044
24	149.4	9.0	838	3	AAZ44265
25	145.8	8.8	252	4	AAFP74305
26	145.8	8.8	402	3	AAZ55548
27	145.8	8.8	402	3	AAZ55549
28	145.8	8.8	405	4	AAFP74300
29	138.2	8.3	520	2	AAFP50755
30	134.6	8.1	5397	6	ABL33045
31	131.6	7.9	345	3	AAZ55550
32	131.6	7.9	345	3	AAZ55551
33	131.6	7.9	393	4	AAFP74306
34	117.4	7.1	385	3	AAA44842
35	117.4	7.1	816	3	AAA4857
36	117.4	7.1	816	3	AAA13338
37	117.4	7.1	816	3	AAFP20979
38	117.4	7.1	816	10	ADG33104
39	117.4	7.1	816	10	ABZ96673
40	117.4	7.1	816	10	ACFP3368
41	117.4	7.1	816	11	AD131910
42	117.4	7.1	816	13	ADP56009
43	112.6	6.8	399	2	AAFP50756
44	108	6.5	6727	2	AAFP8014
45	108	6.5	6727	3	AACT3648

ALIGNMENTS

RESULT 1
AAA34856
ID AAA34856 standard; DNA, 3241 BP.
XX
XX AAA34856;
AC
AC
DT 28-JUN-2000 (first entry)
XX
XX Human adenosine receptor related polynucleotide SEQ ID NO:2545.
DE
XX Human; adenosine receptor; low adenosine antisense oligonucleotide;
XX phosphorochlorate; impaired respiration; inflammation; allergy;
XX allergic disease; bronchoconstriction; inhibitor; antiinflammatory;
XX antiallergic; antiaesthetic; cytostatic; analgesic; impaired airway;
XX lung disease; ischaemic condition; pulmonary vasoconstriction; asthma;
XX respiratory distress syndrome; pain; cystic fibrosis; emphysema;
XX pulmonary hypertension; chronic obstructive pulmonary disease; COPD;
XX cancer; leukaemia; lymphoma; carcinoma; metastasis; ss.
XX
XX OS Homo sapiens.
XX
XX WO200009525-A2.
XX
XX 24-FEB-2000.
XX
XX 03-AUG-1999; 99WO-US017712.
XX
XX 03-AUG-1998; 98US-0095212P.
XX
XX (UYEC-) UNIV EAST CAROLINA.
XX
XX Nycse JW;
XX
XX WPI; 2000-205971/18.
XX
XX New antisense oligonucleotides useful for treating e.g. pulmonary
XX vasoconstriction, inflammation, allergies, asthma, hypertension,
XX bronchitis, emphysema, respiratory distress syndrome, ischemia or
XX cancers.
XX
XX Disclosure; Page 715-716; 1343p; English.
XX
XX The present invention describes a new composition comprising an antisense

CC The present invention describes a new composition comprising an antisense
CC oligonucleotide (ON) with low adenosine (up to 15%), which targets
CC nucleic acids involved in bronchoconstriction, allergies, and/or
CC inflammation. The ON can have antiinflammatory, antiallergic,
CC antiasthmatic, cytoskeletal and analgesic activities. The compositions are
CC useful for the treatment of diseases associated with inflammation,
CC impaired airways, including lung disease and diseases whose secondary
CC effects afflict the lungs of a subject. They can be used for treating
CC e.g. ischemic conditions, pulmonary vasoconstriction, allergies, asthma,
CC impaired respiration, respiratory distress syndrome, pain, cystic
CC fibrosis, pulmonary hypertension, emphysema, chronic obstructive
CC pulmonary disease (COPD), and cancers such as leukemias, lymphomas,
CC carcinomas, and cancers which may metastasize to the lungs, including
CC breast and prostate cancer. The reduction of the adenosine content of the
CC ONs reduces side effects. The A-containing ONs break down with the
CC release of deoxyadenosine which activates adenosine receptors causing
CC bronchoconstriction and inflammation. AAA3233 to AAA3512 represent the
CC nucleotide sequences given in the sequence listing from the present
CC invention, which correspond to SEQ ID NO:1 to 2815, and then the last 185
CC sequences are also called SEQ ID NO:1 to 185, but the sequences differ
CC from the previously named sequences. SEQ ID NO:11 to 1680 (AAA3233 to
CC AAA33992) are specifically claimed ONs from the present invention. N.B.
CC Sequences given in the disclosure of the present invention do not match
CC up with their corresponding SEQ ID NO: sequences given in the sequence
CC listing

XX Sequence 4057 BP; 1303 A; 683 C; 796 G; 1275 T; 0 U; 0 Other;

Query Match 38.3%; Score 634.6; DB 3; Length 4057;
Best Local Similarity 68.6%; Pred. No. 1.5e-115;
Matches 1226; Conservative 0; Mismatches 374; Indels 187; Gaps 18;

QY 1 AGGCAACACATGAACTTTCAGACCTATGAGATGCTTCTGAAATTTGAGTTTGTACCTC 60
DB AGGCAACACGAGACGTTTCAGACCCATGAGATGCTTCTGCAATTTGAGTTTGTACCTC 585
QY 61 TTGGGGCTGCTATGTTTTCGCTTGTCTGTGAGAAATCCCATGAATGACTGTGTGAG 120
DB TTGGAGCTGCTATGATGATGATGATGATGATGATGATGATGATGATGATGATGATG 645
QY 121 AGACCTTGACACCTCTCCACCTCATGCAATTTGAGTATGAGGATGAGGATATTTTCT 180
DB AGACCTTGACACCT 705
QY 181 TTTGATTTCTCAAGCTTTTAAATGCAATGAGTATGAGTATGAGTATGAGTATGAGT 234
DB TTTGATTTCTCAAGCTTTTAAATGCAATGAGTATGAGTATGAGTATGAGTATGAGTAT 765
QY 235 -TTTAAAGATTCATTAATTAATGAGTATGAGTATGAGTATGAGTATGAGTATGAGT 293
DB ATATGAGATCTGTTATTAATTAATGAGTATGAGTATGAGTATGAGTATGAGTATGAGT 824
QY 294 ATGTTACTCAGAAATATTAATTAATGAGTATGAGTATGAGTATGAGTATGAGTATG 353
DB ACATCACCAGAAACATTTCTTTAAAGTATGAGTATGAGTATGAGTATGAGTATGAGT 884
QY 354 TTGTTCTCTTCTTTTCAAGCTGATGATGATGATGATGATGATGATGATGATGAT 413
DB -TATTTCTCTTCT 943
QY 414 AAATTAATGATTTGATTAATTAATTAATGATGATGATGATGATGATGATGATGAT 465
DB AAATTAATGATTTGATTAATTAATTAATGATGATGATGATGATGATGATGATGATGAT 1003
QY 470 GTATCAGTTAATCATTTGATTTAATTTAATTTAATTTAATTTAATTTAATTTAAT 529
DB TCATTAATGATTTGATTTAATTTAATTTAATTTAATTTAATTTAATTTAATTTAAT 1063
QY 530 AAAT-TATGCTTATGAAATTAATGAAATGATGATGATGATGATGATGATGATGAT 588
DB TAAATGCTGATCTTATTAATTAATGAAATGATGATGATGATGATGATGATGATGAT 1108
QY 589 GAATCCATTAAGCAAGTGAATGAGGCTTTTGTGATGATGATGATGATGATGATGAT 648

DB 1109 GAATCCATTAAGCAAGTGAATGAGGCTTTTGTGATGATGATGATGATGATGATGAT 1167
QY 649 AGCTGCTGTCAGGACATTTCTTCAAAAGAAATTCATATTGGGTCAGAGATTTCTCTAG 708
DB 1168 AGCATGCTGTCAGGACATTTCTTCAAAAGAAATTCATATTGGGTCAGAGATTTCTCTAG 1227
QY 709 GCTTCATTCACCTCTGCTGTTGGCTTCTCTACCTCAAGCTTTTCTGAAAGTACTAGCA 768
DB TCTCCGTCAGGATCTGAC-----TCTTTCACCTCTCAAGCTTTCTGAAAGTACTAGCA 1282
QY 769 ACTTGGGCTTATTTTATTAATTAATGATGATGATGATGATGATGATGATGATGATG 828
DB 1283 ACTGAGATTTATTTTATTAACCATGATGATGATGATGATGATGATGATGATGATG 1341
QY 829 ATATTAATGATCTCTTCCACATATTTTAAATGATTTTAACTTAATGAAATCATATCAT 888
DB 1342 -CTATTAATTAATTTCTGATACCTTAATTAATTAATTAATTAATTAATTAATTAAT 1400
QY 889 CTGAGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATG 948
DB 1401 TTGAATATGCTCTGCTGATTAATTAATTAATTAATTAATTAATTAATTAATTAAT 1460
QY 949 ATAAATTAACCATGATGATGATGATGATGATGATGATGATGATGATGATGATGATG 1008
DB 1461 ATAAATTAACCATGATGATGATGATGATGATGATGATGATGATGATGATGATGATG 1514
QY 1009 GTTGTATTAATTAATCTGATGATGATGATGATGATGATGATGATGATGATGATGATG 1068
DB 1515 --TGCATTAATTAATTTCTGATACCTTAATTAATTAATTAATTAATTAATTAAT 1572
QY 1069 ACATCTGCTGATTAATTAATTAATTAATTAATTAATTAATTAATTAATTAATTAAT 1127
DB 1573 AAATCTGCTGATTAATTAATTAATTAATTAATTAATTAATTAATTAATTAATTA 1632
QY 1128 GTGTTTCCCACTGGAAGAACAAAGTAAACCTCTGGAGAAAGGAACTTGTTGA 1187
DB 1633 GTGTTTGTGCTGAGAA-----ACAAACAAAAACCTTTGGAGAAAGGAACTCATGTA 1688
QY 1188 AACCCCAAAACAAAGCTTAATCTT----- 1213
DB 1689 AATTAACCAAAACAAAGCTTAATCTTGTGACCAAAATTTGTTAATTAATTTTAA 1748
QY 1214 ----- 1213
DB 1749 TTGATGAATTAAGATATATATTAATTAATTAATTAATTAATTAATTAATTAAT 1808
QY 1214 -----TTGACCAAAATTTTATGCTGTTTGAATTAATTAATTTT 1256
DB 1809 ACATGCAAGTGAATGACATGACCAAAATTTTATACCTTGTGATTAATTTGCA-TTTT 1867
QY 1257 TAAATCTTCTGATTTAGACCAACTGTGCATTAAGAAATTTTTCAGGGATATGACAC 1316
DB 1868 AAAAATTTTCTCATTTAGACCAACTGTGCATGAAAGAAATCTTTCAAGGAATAGCAC 1927
QY 1317 ATGGAACCAAACTGCCACAGGGAGGCTGTGATTAATTAATTAATTAATTAATTAAT 1376
DB 1928 ACTGAGAGTCAAACTGTGCAAGGGGTACTGTGGAAGAACTAATCAAAACCTGTCTT 1987
QY 1377 AATTAAGAACACATAGAGGCAAAAGTAAAGTAAAGCATTTGGCAAAACCTTAAGT 1436
DB 1988 AATTAAGAAATTAATTAAGGCGCCAAAAAGTAAAGTAAAGTAAAGTAAAGTAA 2042
QY 1437 ATATTTGCTGACCTGCTGTTTCTTTTCTTTTCTTTTCTTTTCTTTTCTTTTCTTT 1496
DB 2043 ATATTTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCT 2088
QY 1497 CAATATCT-----CCTGTGCTTTTAAAGAAAGCTGTGACGAAAGATGAGAG 1550
DB 2089 TAAATACCTATGCTATTTTCTTTTCTTTTCTTTTCTTTTCTTTTCTTTTCTTTTCT 2148
QY 1551 TGAACAAGTCTTGAATCTGCAAGTATTTCTGTGTATTAATTAACCGAAGTGAAC 1610

Db	2149	TAAGCAATTCCTAGACTACGCAAGAGTTCTTGCTGTAAATGAACACGAGTGATATA	220
Oy	1611	CGAAAGTTGAGACAAACCGGCTATTGTAGTGAAGATTTGGAG	1657
Db	2209	TAGAAAGTGAAGACTAAACTGGTTGTCACAGCAAAAGATTTGGAG	2255
RESULT 5			
ID	AAF20980		
XX	AAF20980	standard; DNA; 4057 BP.	
XX	AAF20980;		
DT	14-MAR-2001	(first entry)	
XX			
De		Human low adenosine antisense oligonucleotide related sequence #2547.	
XX			
KW		Low adenosine antisense oligonucleotide; phosphorothioate; allergy;	
KW		human; airway disorder; bronchoconstriction; lung inflammation;	
KW		surfactant depletion; respiratory; bronchodilator; antiinflammation;	
KW		immunosuppressive; antialsthmatic; analgesic; hypotensive; cyostatic;	
KW		respiratory obstruction; pulmonary obstruction; impeded respiration;	
KW		surfactant hypoproduction; pulmonary vasoconstriction; asthma; RDS;	
KW		respiratory distress syndrome; pain; cystic fibrosis; allergic rhinitis;	
KW		pulmonary hypertension; emphysema; pulmonary transplantation rejection;	
KW		chronic obstructive pulmonary disease; pulmonary infection; bronchitis;	
KW		Cancer; 89.	
OS			
XX		Homo sapiens.	
XX			
PN		WO200062736-A2.	
XX			
PD		26-OCT-2000.	
XX			
PF		24-MAR-2000; 2000MO-US008020.	
XX			
PR		06-APR-1999; 99US-0127958P.	
PA		(UYEC-) UNIV EAST CAROLINA.	
PA		(NYCE/) NYCE J W.	
PI		Nyce JW;	
XX			
DR		WPI; 2000-679539/66.	
XX			
PT		Low adenosine (A) content antisense oligonucleotides which do not trigger	
PT		adenosine receptors during metabolism, useful e.g. for treating cancers	
PT		and respiratory obstructions.	
XX			
XX		Disclosure; Page 788-789; 1592pp; English.	
XX			
XX		The present invention describes low adenosine (A) content antisense	
CC		oligonucleotides and compositions (I) comprising them. In the antisense	
CC		oligonucleotides the A is replaced by a 'Universal' or alternative base.	
CC		(I) can have respiratory, bronchodilator, antiinflammatory, analgesic,	
CC		immunosuppressive, antialsthmatic, hypotensive and cytostatic activities.	
CC		The antisense oligonucleotides and (I) can be used to down-regulate the	
CC		expression and or activity of target polypeptides associated with	
CC		lung/respiratory disorders and malignancies, such as stimulating and	
CC		activating peptide factors and transmitters, transcription factors,	
CC		immunoglobulins and antibodies, antibody receptors, cytokines and	
CC		chemokines, endogenously produced specific and non-specific enzymes,	
CC		binding proteins, adhesion molecules and their receptors, cytokine and	
CC		chemokine receptors, adenosine receptors, bradykinin receptors, central	
CC		nervous system (CNS) and peripheral nervous and non-nervous system	
CC		receptors, CNS and peripheral nervous and non-nervous system peptide	
CC		transmitters, defensins, growth factors, vasocactive peptides and	
CC		receptors, binding proteins and malignancy associated proteins. The	
CC		antisense oligonucleotides may be used in this way to treat disorders	
CC		including respiratory obstruction (especially pulmonary obstruction	
CC		and/or bronchoconstriction) and/or lung inflammation, allergy(ies) and/or	
CC		surfactant hypoproduction which are associated with a disease or	
CC		condition selected from pulmonary vasoconstriction, inflammation,	

CC	allergies; asthma, impeded respiration, respiratory distress syndrome (RDS), pain, cystic fibrosis (CF), allergic rhinitis (AR), pulmonary hypertension, emphysema, chronic obstructive pulmonary disease (COPD), pulmonary transplantation rejection, pulmonary infections, bronchitis, and/or cancer. AAF18434 to AAF21543 represent human polynucleotide fragments and antisense oligonucleotides used in the exemplification of the present invention
XX	Sequence 4057 BP; 1303 A; 683 C; 796 G; 1275 T; 0 U; 0 Other;
SQL	Query Match 38.3%; Score 634.6; DB 3; Length 4057; Best Local Similarity 68.6%; Pred. No. 1.5e-115; Matches 1226; Conservative 0; Mismatches 374; Indels 187; Gaps 18;
QY	1 AGCGAACAACCTGAAACATTTCCAGAGCTATGAGAAATGCTTTGAAATTTGATTTGGCTAGCTC 60
DB	526 AGCGAACAACGCGAAGACGTTCCAGAGCCATGAGAGATGCTTCTGCAATTTGGATTTGGCTAGCTC 585
QY	61 TTGGGGGCTGCTAATGTTTCTGGCTTTTGGCTGTGAGAAATCCATGATATGACTGGTGGAG 120
DB	586 TTGGAGCTGCTGCTAGGTATGATGCAATCCCGACAGAAATTTCCACAAAGTGCAATTTGGTGAAG 645
QY	121 AGACCTTGACACTGCTCTCCACTGATGAACTTGGCTGATATGGAGATGGGGTAAATTTTCT 180
DB	646 AGACCTTGACACTGCTCTTCTACTGATGAACTCTGCTGATATGCCAAATGAGGTAAATTTTCT 705
QY	181 TTTTGATTTCTACAGCTCTTTAAATGATGGGTAAATTTGGTGGTGGCTAGTT----- 234
DB	706 TTATGATTTCTACAGCTCTGTAAATGATGATATGATATGATTTGATATGTTCTTTACATAT 765
QY	235 -TTTAAAGATTCATATTCATATATGAAATATGAGTGTAAATATATATATATATGAGTAAAC 293
DB	766 ATATAGAGATCTGTATTAATAATAATAGATTCAGAG -CACATTAGATACATGGGTATTAATC 824
QY	294 ATGTTACTCGAAGAAATATATTTAAAGTATAGAACCTTACAATATATTAATAAATGAAATG 353
DB	825 ACATCCACAGCAACATTTCTGTAAAGTATAGAAATGCTGGTGTGCTGTAAATAAATGATTTG 884
QY	354 TTGTTTCTCTTTCTTTTTCAGAACTGATGATTTCTTACTCTGAAATTAATAATGATGTT 413
DB	885 -TATTTCTCTTTCTCTCTCAGACTGTAGAGATTCCTGTTTCTCTGTACATATAAATGTAAGTT 943
QY	414 AAATTAATGATTTGATTAATAATGATTAATCATGATCACT---TTCAATTTTAAAGTATATA 469
DB	944 AAATTAATGATTTCAATTAATAATGATGATGATTAATGATTAATTTCTGTTTAAAGCTGTAA 1003
QY	470 GTATCAGTTAACATTTGGAGATGATTTAAATTTTATCTATTTTGTTTTATATGTTGGAGATG 529
DB	1004 TCATTTAGTTATCATTTGAACTAATTTAAATTTTCTATATTTGTTTTCATATGAGGTGGCTGT 1063
QY	530 AAAT-TATGTGCTATGATTAATTAAGAAATGGTGTAAAGATGGCTCTACATATATTAAGTA 588
DB	1064 GAATGCTGTACTTATTAATAATGAGAAATGACTTT-----TTATCAAGTA 1108
QY	589 GAATTCATTTAAGCAAGTGATCAGAGCCCTTTTGTATGTTGTCAATTCATTCATCAAG 648
DB	1109 GAATTCCTTTAAACAAGTGATTTAGAGCTCTTTGGTATGTTGTATGTT-TGCTCCCAAG 1167
QY	649 AGCTCTGTATGAGCATTTCTTTCCAAAAGATTCATATTTGGGTCAAGATATCTTCTAG 708
DB	1168 AGCATCTGTATGAGGATTTCTTTCCAGAAGATTCACACTGATGAGAGGTGGCTGTAG 1227
QY	709 GCTCATTTACCTCTGTGCTGGTGGCTTCTCACTCAACGTTTCTGAAATGTACTAGCA 768
DB	1228 TCTCCGTGCAAGTTCTGAC-----TCTTTCTACTCTAAGCGTGTCTTGTAAAGTATTTAGCA 1288
QY	769 ACTTGGGGTATATATTTTAAATTAATGATGATGAGACATGAAATATACAGTGAAGTCT 828
DB	1283 ACTCAGATTAATATTTTAAAGACATGATGATGATTAATAATATATATACAAATGCC- 1341
QY	829 ATATTAATATGACATCTGCACATATTTAAATGATTTTAACTCTTAATGAGATCATATACAT 888
DB	1342 -CTATATTAATAAATTTCTGCATCTTAATATATTAATGATATGATGAGGTGTTGATAGCA 1400

```

QY      889 CTGAGTATGTCATGTCATATTTAAATGTTAAATGTCATATCTAAGCTTAATAGA 948
      1401 TTGGAATATGTCCTGGTCATATTTAAATGTTAAATATATAGTTTATAGCTTAATAGA 1460
QY      949 ATAAATTCACAGCTAGACATATCGAGAAATTCAGAGTGAGGTAAATCAGTAAGCA 1008
      1461 ATAAATTCACAGCTAGACATATCGAGAAATTCAGAGTGAGGTAAATCAGTAAGCA 1514
QY      1009 GTTGATTAATACCTGTAAGCATTTATTTTCAATTAATCAATTTCAATTAATCAATTTGTA 1068
      1515 --TGCAATTCAGCTCCAAACATTTTTCAGTTACATATTAATTAATTCCTTTATA 1572
QY      1069 ACACCTTCAGTAATTAATTAATCAATTAATTCATTAATGTAATTAATTAATTAATTAAG 1127
      1573 AAACCTTCAGTAATTAATTAATCAATTAATTCATTAATTAATTAATTAATTAATGTA 1632
QY      1128 GTGGTTCCACCGGAGAAAGACCAAGTAAATCCCTTGGAGAGAGGAACTTGTA 1187
      1633 GTGGTTGGTGGCTAGAAA--ACAAACAAAAAATCTTGGAGAGGAACTCATGTA 1688
QY      1188 AACCCACAAAAACAAGCTTAATTT----- 1213
      1689 AATACCAAAAAACAAGCTTAATTTGTGACCAAAATGTTTAAATTAATTTTAA 1748
QY      1214 ----- 1213
      1749 TTGATGATTAATAAAGTATATATTTATTTGTGACAAATATGATGTTTGAATATAT 1808
QY      1214 -----TTGGACAAATTTTATGCTGTTTGAATTAATTAATTTT 1256
      1809 ACATTCGAAGTGAACAATGAGCAAAATTTTATACCTGTCGTGATTAATTTGA-TTTT 1867
QY      1257 TAAATCTTCTCATTTTGAACAACAATGTCATTAAGAAATTTTTCAGGATATAGACAC 1316
      1868 AAAAAATTTCTCTCATTTTGAACAACAATGTCATTAAGAAATTTTTCAGGAAATAGGAC 1327
QY      1317 ATTGAAGAACCAACCTGCCACGGGGAGGCTGTGATTAATTAATTAATTAATTAATTTT 1376
      1928 ACTGGAAGTCAAACTGTGCAAGGGGTACTGTGAAAGACTAATTCAAAAAATGTCCTT 1987
QY      1377 AATAAAGAACATAGAGGCCAAAAAGTAAGTAAAGACTTTGGCAAAAACTTAAGT 1436
      1988 AATAAAGAACATAGAGGCCAAAAAGTAAGTAAAGACTTTGGCAAAAACTTAAGT 2042
QY      1437 ATAATTCGACTGCTGCTGTTTATTTTATTTTCAAGAAATTAAGTAAATTTTCTTA 1496
      2043 ATAATTCGACTGCTGCTGTTTATTTTATTTTCAAGAAATTAAGTAAATTTTCTTA 2088
QY      1497 CAATATCT-----CCTGCTTTTAAAGAAAGGTGACAGAAAGATGAGAG 1550
      2089 TAAATCACTATGTCATTTTCTTTTTCACAGAAAGGTGAGAGAAAGACGGAGAG 2148
QY      1551 TGCAAGTTCCTGACTGACTGCAAGTATTTCTTGCTGTAATTAACACGAGTGCAC 1610
      2149 TAAACCAATTCCTGACTGACTGCAAGTATTTCTTGCTGTAATTAACACGAGTGCAT 2208
QY      1611 CGGAAGTGAAGAACCAACCGCTTATTTGTAAGTGAAGATTTTGAG 1657
      2209 TAGAAAGTTGAGACTAACTGTTGTTGACGCAAAAGATTTTGAG 2255

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RESULT 6
AB296674
ID AB296674 standard; DNA; 4057 BP.

XX AC AB296674;
XX 17-OCT-2003 (first entry)
XX Human nucleic acid sequence.
XX Human, antisense; lung dysfunction; nasal airway dysfunction;
XX KM

KM antiinflammatory steroid; ubiquinone; antiinflammatory; antiallergic;
KM antileukemic; hypotensive; immunosuppressive; cytotoxic; gene therapy;
KM antisense gene therapy; respiratory; lung; adenosine sensitivity;
KM adenosine receptor; bronchodilation; bronchoconstriction; lung allergy;
KM lung inflammation; respiratory disease; de.
OS Homo sapiens.
PN WO200285308-A2.
PD 31-OCT-2002.
PF 23-APR-2002; 2002MO-US013135.
PR 24-APR-2001; 2001US-0286137P.
PA (EPIC-) EPIDENESIS PHARM INC.
PI Nyce JW, Li Y, Sandrasegura A, Katz E, Pabalan J, Aguilar D;
PI Miller S, Tang L, Shahabuddin S;
PI WPI; 2003-229219/22.
PS Disclosure; SEQ ID NO 11916; 872bp; English.
XX The invention relates to a novel pharmaceutical composition, which has a
XX first active agent comprising an oligonucleotide antisense to the
XX initiation codon, coding region, 5' or 3' end and genomic flanking regions,
XX 5' and 3' intron-exon junctions, or regions within 2-10 nucleotides of
XX junctions of genes encoding a polypeptide associated with lung and/or
XX nasal airway dysfunction and a second active agent comprising an
XX antiinflammatory steroid and ubiquinone. A composition of the invention
XX has antiinflammatory, antiallergic, antileukemic, hypotensive,
XX immunosuppressive, and cytotoxic activity. The composition may have a
XX use in antisense gene therapy. The composition is useful for treating or
XX preventing a respiratory, lung or malignant disease or condition, also
XX for enhancing the prophylactic or therapeutic respiratory effect of an
XX antiinflammatory steroid in a subject, for reducing or depleting levels
XX of, or reducing sensitivity to adenosine, reducing levels of adenosine
XX receptor, producing bronchodilation, increasing levels of ubiquinone or
XX lung surfactant in a subject's tissue, or treating bronchoconstriction,
XX lung inflammation, lung allergies, or a respiratory disease or condition.
XX Note: The sequence data for this patent is not represented in the printed
XX specification, but was obtained in electronic format directly from WIPO
XX at ftp.wipo.int/pub/published_pat_sequences
SQ Sequence 4057 BP; 1303 A; 683 C; 796 G; 1275 T; 0 U; 0 Other;
Query Match 38.3%; Score 634.6; DB 10; Length 4057;
Best Local Similarity 68.6%; Pred. No. 1,5e-115;
Matches 1226; Conservative 0; Mismatches 374; Indels 187; Gaps 18;
QY 1 AGCAAAACCTGAACATTTGAGAGTATGAGATGCTTGAATTTGAGTTGCTAGCTC 60
DB 526 AGCAAAACCTGAACATTTGAGAGTATGAGATGCTTGAATTTGAGTTGCTAGCTC 585
QY 61 TTGGGGCTGCTATGTTTCTGCTTTGCTGTAGAAAAATCCATGAATGACTGGTGCAG 120
DB 586 TTGGAGCTGCTATGCTATGATGATCCCAAGAAATTTCCCAAGTGCATTTGTGAAG 645
QY 121 AGACTTGAACATGCTCTCCATCATGCAATGAACTGGCTGATAGGCGATAGGCTAATTTCT 180
DB 646 AGACTTGAACATGCTCTCTCCATCATGCAATGAACTGGCTGATAGGCGATAGGCTAATTTCT 705
QY 181 TTTGATTCCTACAGCTTTTAAATGATGATGATTTGATGATGATGATGATGATGATGATGAT 234
DB 706 TTTGATTCCTACAGCTTTTAAATGATGATGATTTGATGATGATGATGATGATGATGATGAT 765

QY 235 -TTTAAAGATCCATTATCAATTAATGAATAGAGTGTAAATTAATATATGGAACC 293
 Db 766 ATATAGAGATCTGTATTAATTAATTAAGATTCTGAG-CACATTAAGACATGGGTATACT 824
 QY 294 ATGTACTCAGAGAATTAATTAATGAATAGAACTTACAAATACATTAATAATGAATG 353
 Db 825 ACATACACAGCAAAATCTGTAAAGTATGAATGATGCTGTGCTGTAAATAATGATG 884
 QY 354 TTTGTTCTTTCTTTTCAGAACTGATGATCTCACTCCGAAATTAATAATGTAATGTT 413
 Db 885 -TATTTCTTTCTTCAGACTCTGAGAGATTCCTGTCTGTACATTAATAATGTAATGTT 943
 QY 414 AAATTAATGATTTGAATTAATGATTAATGATCAATCACTGATCACTGATCACTGATCACT 469
 Db 944 AAATTAATGATTTGAATTAATGATTAATGATTAATGATTAATGATTAATGATTAATG 1003
 QY 470 GTATCACTTAACATTTGGATGATTTAATTTATCTATTTGTTTATGTTGCGGATGT 529
 Db 1004 TCATTAGTTATCATTTGGAATCAATTTAATTTCTATATTTGTTTCAATATGCGGCTGT 1063
 QY 530 AAAT-TATGCTCTTATGAATTTAGATGATGATGATGATGATGATGATGATGATGATG 588
 Db 1064 GAATGCTGTAATTAATTAATTAATGATGATGATGATGATGATGATGATGATGATGATG 1108
 QY 589 GAATCACTTAACAGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATG 648
 Db 1109 GAATCTTTTAAACAAGTATGATGATGATGATGATGATGATGATGATGATGATGATGATG 1167
 QY 649 AGCTGCTGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATG 708
 Db 1168 AGCATGCTGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATG 1227
 QY 709 GCTTCATTCACCTCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTG 768
 Db 1228 TCTCGGCACTTCTGAC-----TCTTCTCACTTAAGTCTGCTGCTGCTGCTGCTGCTGCTG 1282
 QY 769 ACTGGGGTATATTTTATGATTAATGATGATGATGATGATGATGATGATGATGATGATGATG 828
 Db 1283 ACTGAGATTAATTTTATGATTAATGATGATGATGATGATGATGATGATGATGATGATGATG 1341
 QY 829 ATATTAATGATCACTTCCATTAATTAATTAATTAATTAATTAATTAATTAATTAATTAAT 888
 Db 1342 -CTATATTAATTAATTTCTGATTAATTAATTAATTAATTAATTAATTAATTAATTAATTA 1400
 QY 889 CTGAGATTAATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATG 948
 Db 1401 TTTGATTAATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATG 1460
 QY 949 ATAAATTAACAGCTAGATTAATGATGATGATGATGATGATGATGATGATGATGATGATGAT 1008
 Db 1461 ATAAATTAACAGCTAGATTAATGATGATGATGATGATGATGATGATGATGATGATGATGAT 1514
 QY 1009 GTTGTATTAATCACTGATTAATTAATTAATTAATTAATTAATTAATTAATTAATTAATTA 1068
 Db 1515 --TCATTAATCACTGATTAATTAATTAATTAATTAATTAATTAATTAATTAATTAATTAAT 1572
 QY 1069 ACATCTTCACTGATTAATTAATTAATTAATTAATTAATTAATTAATTAATTAATTAATTA 1127
 Db 1573 AAATCTTCACTGATTAATTAATTAATTAATTAATTAATTAATTAATTAATTAATTAATTA 1632
 QY 1128 GTTGTATTAATCACTGATTAATTAATTAATTAATTAATTAATTAATTAATTAATTAATTA 1187
 Db 1633 GTTGTATTAATCACTGATTAATTAATTAATTAATTAATTAATTAATTAATTAATTAATTA 1688
 QY 1188 AACCCACAAACAAAGCTTAATTT----- 1213
 Db 1689 AATACCAAAACAAAGCTTAATTT----- 1213
 QY 1214 ----- 1213
 Db 1749 TTGATGAATTAATAATTAATTAATTAATTAATTAATTAATTAATTAATTAATTAATTAAT 1808
 QY 1214 -----TTGACCAAAATTTTATGCTGTTTGAATTAATTAATTTT 1256

Db 1809 ACATTCAGATGAGCAATGAGCAATTTTATACCTTGTCTGATTAATTTGCA-TTTT 1867
 QY 1257 TAAATCTTCTCTTATGAGCAACCACTGTCATTAAGAGTTTTCAGGTTATAGCAC 1316
 Db 1868 AAAATTTTCTCTATTTAGCAACCACTGTCATTAAGAGTTTTCAGGTTATAGCAC 1927
 QY 1317 ATGAGAACCAAACTGCCCCAGGAGGCTGTGATTAATTAATTAATTAATTAATTAATTAAT 1376
 Db 1928 ACTGAGAGTCAACTGTCAGAGGGGCTACTGTGAGAAAGACTATTAACAAATCTGTCTT 1987
 QY 1377 AATTAAGAACCACTGAGGCGCCAAAGATTAAGATTAAGATTTGCAAAATCTTAAGT 1436
 Db 1988 AATTAAGAACCACTGAGGCGCCAAAGATTAAGATTAAGATTTGCAAAATCTTAAGT 2042
 QY 1437 ATATTTGCTGAGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCT 1496
 Db 2043 ATATTTGCTGAGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCT 2088
 QY 1497 CAATATCT-----CCTGCTGCTTAAAGAAAGGTCAGAGAAAGATGAGAG 1550
 Db 2089 TAATACCTATTTGCTATTTTCTTTTCAAGAAAGGTCAGAGAAAGATGAGAG 2148
 QY 1551 TGACAAAGTCTGAGCTGAGCTGAGATTTCTTGTGATTAATTAACCAAGATGAGACAC 1610
 Db 2149 TAAACCAATTCCTGAGCTGAGCTGAGATTTCTTGTGATTAATTAACCAAGATGAGAT 2208
 QY 1611 CGGAAAGTGAACAAACCGGCTTATTTGATGAGAAAGATTTTGAG 1657
 Db 2209 TAGAAAGTGAACAAACCGGCTTATTTGATGAGAAAGATTTTGAG 2255

RESULT 7
 ABD20523
 ID ABD20523 standard; DNA; 4057 BP.
 XX
 AC ABD20523;
 XX
 DT 29-JUL-2004 (first entry)
 XX
 DE Human pulmonary and inflammatory target DNA #134.
 XX
 KW Human; antiseize; bronchoconstriction; allergy; hyposecretion; pain;
 KW respiratory tract inflammation; adenomine sensitivity; lung; cancer;
 KW surfactant depletion; antiallergic; antinflammatory; antidiabetic;
 KW analgesic; hypotensive; immunosuppressive; cytostatic; cystic fibrosis;
 KW beta-adrenergic agonist; respiratory disease; pulmonary vasoconstriction;
 KW respiratory distress syndrome; allergic rhinitis; pulmonary hypertension;
 KW emphysema; chronic obstructive pulmonary disease; cancer; bronchitis;
 KW pulmonary transplantation rejection; ds.
 KW
 OS Homo sapiens.
 OS
 PN WO200285309-A2.
 PN
 PD 31-OCT-2002.
 PD
 PE 23-APR-2002; 2002WO-USO13143.
 PE
 PR 24-APR-2001; 2001US-0286036P.
 PR
 RA (EPIC-) EPIDEMESIS PHARM INC.
 RA
 PI Nyce JW, Li Y, Sandrasagra A, Katz E, Pabalan J, Aguilar D;
 PI Miller S, Tang L, Shahbuddin S;
 PI
 DR WPI; 2003-093056/08.
 DR
 XX
 PT Pharmaceutical composition for treating asthma, has antiseize
 PT oligonucleotide containing less percentage of adenosine, targeted to
 PT nucleic acids associated with lung airway or lung dysfunction, and
 PT bronchodilating agent.

PS Claim 15; SEQ ID NO 11916; 763bp; English.

XX This invention describes a novel composition (a) a first active agent,
 CC comprising oligonucleotides, effective for alleviating
 CC bronchoconstriction, respiratory tract inflammation, allergies and
 CC reducing adenosine sensitivity, levels of adenosine (A) or (A) receptors,
 CC surfactant depletion or hyposecretion, when administered to a mammal. The
 CC oligonucleotides are derived from a gene encoding or regulating
 CC expression of a target polypeptide associated with lung airway or lung
 CC dysfunction or cancer and can be anti-sense to the corresponding mRNA.
 CC The invention also describes a kit, that comprises: (a) a delivery
 CC device, in separate containers, (b) the oligonucleotides, (c)
 CC instructions for adding a carrier and for use of the kit. The composition
 CC of the invention has anti-allergic, anti-inflammatory, antiasthmatic,
 CC analgesic, hypotensive, immunosuppressive and cytostatic activity, is a
 CC beta-adrenergic agonist. The composition is useful for preventing or
 CC treating a respiratory, lung or malignant disease. The administered
 CC composition comprises oligo and is administered to reduce the production
 CC or availability, or to increase the degradation of the target mRNA or to
 CC reduce the amount of target polypeptide present in the lungs. The
 CC pulmonary obstruction, and/or bronchoconstriction and/or lung
 CC inflammation, allergies and/or surfactant hypoproduction are associated
 CC with a disease or condition such as pulmonary vasoconstriction,
 CC inflammation, allergies, asthma, impeded respiration, respiratory
 CC distress syndrome, pain, cystic fibrosis, allergic rhinitis, pulmonary
 CC hypertension, emphysema, chronic obstructive pulmonary disease, pulmonary
 CC transplantation rejection, pulmonary infections, bronchitis or cancer.
 CC The reduced adenosine content of the anti-sense oligos corresponding to
 CC thymidines present in the target RNA serves to prevent the breakdown of
 CC the oligonucleotides into products that free adenosine into the system
 CC e.g., lung, brain, heart, kidney, etc, tissue environment and thereby, to
 CC prevent any unwanted effects due to it
 XX
 XX Sequence 4057 BP; 1303 A; 683 C; 796 G; 1275 T; 0 U; 0 Other;

Query Match 38.3%; Score 634.6; DB 11; Length 4057;
 Best Local Similarity 68.6%; Pred. No. 1.5e-115;
 Matches 1226; Conservative 0; Mismatches 374; Indels 187; Gaps 18;

QY 1 AGGCAACACTGACATTTTCAGAGCTATGAGATGCTTCTGAAATTTGAGTTGCTACCTC 60
 Db AGGCAACACTGACATTTTCAGAGCTATGAGATGCTTCTGAAATTTGAGTTGCTACCTC 585
 QY 526 AGGCAACACTGACATTTTCAGAGCTATGAGATGCTTCTGAAATTTGAGTTGCTACCTC 585
 Db 526 AGGCAACACTGACATTTTCAGAGCTATGAGATGCTTCTGAAATTTGAGTTGCTACCTC 585
 QY 61 TTGGAGCTGCTATGTTTCTGCTTTGCTGAGAAAATCCCATGAATAGACTGGTGACAG 120
 Db TTGGAGCTGCTATGTTTCTGCTTTGCTGAGAAAATCCCATGAATAGACTGGTGACAG 645
 QY 586 TTGGAGCTGCTATGTTTCTGCTTTGCTGAGAAAATCCCATGAATAGACTGGTGACAG 645
 Db 586 TTGGAGCTGCTATGTTTCTGCTTTGCTGAGAAAATCCCATGAATAGACTGGTGACAG 645
 QY 121 AGACCTTGACAGCTGCTCCACCTATGAGATGCTTGGCTGATAGGAGGATATTTTCT 180
 Db 121 AGACCTTGACAGCTGCTCCACCTATGAGATGCTTGGCTGATAGGAGGATATTTTCT 180
 QY 646 AGACCTTGACAGCTGCTCCACCTATGAGATGCTTGGCTGATAGGAGGATATTTTCT 705
 Db 646 AGACCTTGACAGCTGCTCCACCTATGAGATGCTTGGCTGATAGGAGGATATTTTCT 705
 QY 181 TTTTGATTTCTCACTGCTTTTAAATGATGGGTATGCTGCTGCTGCTGCTGCTGCTGCTGCT 234
 Db 181 TTTTGATTTCTCACTGCTTTTAAATGATGGGTATGCTGCTGCTGCTGCTGCTGCTGCTGCT 234
 QY 706 TTTTGATTTCTCACTGCTTTTAAATGATGGGTATGCTGCTGCTGCTGCTGCTGCTGCTGCT 765
 Db 706 TTTTGATTTCTCACTGCTTTTAAATGATGGGTATGCTGCTGCTGCTGCTGCTGCTGCTGCT 765
 QY 235 -TTTAAAGATTCATATCAATATGAGATGAGTATGATATATATATATATATATATATATATAT 293
 Db 235 -TTTAAAGATTCATATCAATATGAGATGAGTATGATATATATATATATATATATATATATAT 293
 QY 766 ATATAGAGATCTGTTAT 824
 Db 766 ATATAGAGATCTGTTAT 824
 QY 294 ATGTTACTCAGAAAT 353
 Db 294 ATGTTACTCAGAAAT 353
 QY 825 ACATACACAGCAACATCTGTTAAAGTTATGAGATGCTGCTGCTGCTGCTGCTGCTGCTGCT 884
 Db 825 ACATACACAGCAACATCTGTTAAAGTTATGAGATGCTGCTGCTGCTGCTGCTGCTGCTGCT 884
 QY 354 TTGTTCTCTTCTTTTTCAGAACTGATGCTTCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCT 413
 Db 354 TTGTTCTCTTCTTTTTCAGAACTGATGCTTCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCT 413
 QY 885 -TATTTCTTTCTCTCTCAAGCTCTGAGATTTCTGTTCTCTGTTCAATATATATATATATAT 943
 Db 885 -TATTTCTTTCTCTCTCAAGCTCTGAGATTTCTGTTCTCTGTTCAATATATATATATATAT 943
 QY 414 AAT 469
 Db 414 AAT 469
 QY 944 AAT 1003
 Db 944 AAT 1003
 QY 470 GTATCATGTAATGATGGAGATTTATATATATATATATATATATATATATATATATATATAT 529
 Db 470 GTATCATGTAATGATGGAGATTTATATATATATATATATATATATATATATATATATATAT 529

Db 1004 TCATATAGTATATGACATGACAT 1063
 QY 530 AAT-TATGCTTATGAAAT 588
 Db 1064 GAATGCTGATCTAT 1108
 QY 589 GAATGCTGATCTAT 648
 Db 1109 GAATGCTGATCTAT 1167
 QY 649 AGCTGCTGACAGCACTCTTCCCAAAAGATTCATATATATATATATATATATATATATATAT 708
 Db 1168 AGATGCTGACAGCACTCTTCCCAAAAGATTCATATATATATATATATATATATATATATAT 1227
 QY 709 GCTGCAATTCACCTCTGCTGCTGCTTCTTCTCACTCACTCACTTCTTCTGAAAGTACTAGCA 768
 Db 1228 TCTCCGTCAGCTCTGAC-----TCTTCTCACTCACTCACTGTTTCTGAAAGTACTAGCA 1282
 QY 769 ACTTGGGCTAT 828
 Db 1283 ACTCAGAT 1341
 QY 829 AT 888
 Db 1342 -CTAT 1400
 QY 889 CTGAGATATGTCATGCTAT 948
 Db 1401 TTGATATATGCTGCTGCTAT 1460
 QY 949 AT 1008
 Db 1461 AT 1514
 QY 1009 GTTGAAT 1068
 Db 1515 -TGAT 1572
 QY 1069 ACATCTCTCAT 1127
 Db 1573 AATCTCTCAT 1632
 QY 1128 GTGATTTCCACCTGGAAGAACAAAGTAAATCTCTTGGAGAAAGGAACTTGCTGTA 1187
 Db 1633 GTGATTTGCTCTAGAA-----ACAAACAAATATCTTTGAGAGAGGAACTCATGTA 1688
 QY 1188 AACCCACAAACAAAGCTTACTT----- 1213
 Db 1689 AATACACAAACAAAGCTTACTTGTGAGCAAAATGTTTATATATATATATATATATATAT 1748
 QY 1214 ----- 1213
 Db 1749 TTGAT 1808
 QY 1214 -----TTGACCAATTTTATATGCTTGTGTTGATGAAATATATATATATATATATAT 1256
 Db 1809 ACATGCAATGACATGACCAAAATTTTATATCTTGTCTGATATATATATATATATATATAT 1867
 QY 1257 TAAATCTCTCAT 1316
 Db 1868 AAAAAATTTCTCTAT 1927
 QY 1317 ATGGAAGAACCAATGCTCCACGAGGAGCTGTGATATATATATATATATATATATATATATAT 1376
 Db 1928 ACTGAGAGTCAATCTGTGAGAGGAGTATCTGTGAGAAAGCTATATCAAAATCTTGCTT 1987
 QY 1377 AATTAAGAACCAATGAGGCGCAAAAGTATGATTAAGATTTGCAAAATCTTAAGT 1436
 Db 1988 AATTAAGAACCAATGAGGCGCAAAAGTATGATTAAGATTTGCAAAATCTTAAGT 2042
 QY 1437 ATATTTGCTGATCTGCTGCTGCTTCTTCTTCTTCTTCTTCTTCTTCTTCTTCTTCTTCTTCT 1496
 Db 2043 ATATTTGCTGCTGCTGCTGCTTCTTCTTCTTCTTCTTCTTCTTCTTCTTCTTCTTCTTCT 2088

PI Bentivegna SC, Chew A, Choi JY, Denton RR, Kazemi A;
PI Mandabalan K, Parks KE;
DR WPI: 2002-041289/05.
DR P-PSDB; AAU10353.
XX
PT New haplotypes of the human interleukin 5 gene, useful to diagnose and
PT treat diseases associated with the gene including inflammatory disorders
PT such as asthma.
XX
PS Claim 19; Fig 1; 65bp; English.
XX
CC The invention relates to haplotyping the human interleukin 5 (IL5) gene
CC of an individual, comprising determining if the individual has one of the
CC IL5 haplotypes or haplotype pairs fully defined in the specification.
CC Haplotyping the IL5 gene of an individual, comprises determining the
CC identity of the nucleotide at two or more polymorphic sites in one copy
CC of the gene. The method also involves identifying an association between
CC a trait and a haplotype or haplotype pair of the IL5 gene, comprising
CC comparing the frequency of the haplotype/pair in a population exhibiting
CC the trait with that of a reference population. A higher frequency in the
CC trait population indicates the trait is associated with the haplotype.
CC The polymucleotides and screened compounds are useful to develop
CC treatment for diseases associated with IL-5 activity including
CC inflammatory disorders such as asthma. The present sequence represents
CC the coding sequence of interleukin 5 (IL5) as described in the method of
CC the invention
XX
SQ Sequence 9738 BP; 2808 A; 2015 C; 1982 G; 2933 T; 0 U; 0 Other;
Query Match 38.3%; Score 634.6; DB 6; Length 9738;
Best Local Similarity 68.6%; Pred. No. 1.7e-115;
Matches 1226; Conservative 0; Mismatches 374; Indels 187; Gaps 18;
QY 1 AGGCAACACTGAACTTTCAGAGCTATGAGATGCTTGAATTTGAGTTGCTAGCTC 60
DB 4045 AGGCAACACTGAACTTTCAGAGCTATGAGATGCTTGAATTTGAGTTGCTAGCTC 4104
QY 61 TTGGGGGCTGCTATGTTCTGCTTTGCTGTAAGAAATCCCATTAATAGACTGGTGCGAG 120
DB 4105 TTGGAGCTGCTAGCTATGATGCAATCCACAGAAATTTCCACAGATGCTATGTAAG 4164
QY 121 AGACCTTGACACTGCTCCACTCATGCAACTGGCTGATAGCGGATATTTTCT 180
DB 4165 AGACCTTGACACTGCTCTTCTACTCATGCAACTGCTGATAGCCAAATGAGGTAATTTCT 4224
QY 181 TTTGATTTCTCAAGCTTTTAAATGCAATGGGTAATGGTGGTGGTCTAGTT----- 234
DB 4225 TTATGATTTCTCAAGCTTTTAAATGCAATGGGTAATGGTGGTGGTCTAGTT----- 4284
QY 235 -TTTAAAGATTCATTAATGAAGTATGATGTTATTAATTAATGAAGTACC 293
DB 4285 ATATAGAGATCTGTTAAATGAATGAATCTGAG-CACATTAATGAATGGTATTAAT 4343
QY 294 ATGTTACTCAGAAAGATTAATTAATGAAGTATGAACCTTCAATATTAATTAATGAATG 353
DB 4344 ACATACACAGCAACATTTCTTAAAGTTATGAATGCTGCTGCTGTAATTAATGAATG 4403
QY 354 TTGTTTCTTTCTTTTCAAGACTGATGATTCCTACTCTGAAATTAATTAATGAATG 413
DB 4404 -TATTTCTTTCTTTCTCAAGCTCTGAGGATTCCTGTTCCGTATTAATTAATGAATG 4462
QY 414 AAATTAATGATTTGATTAATTAATGAATGATGATGCTGCTGCTGCTGCTGCTGCTG 469
DB 4463 AAATTAATGATTTGATTAATTAATGAATGATGATGCTGCTGCTGCTGCTGCTGCTG 4522
QY 470 GTATCAGTAAATGATGATGATTAATTAATGATGATGATGATGATGATGATGATGATG 529
DB 4523 TCATTAATGATGATGATGATTAATTAATGATGATGATGATGATGATGATGATGATGATG 4582
QY 530 AAAT-TATGCTTATGAATTAATGAATGATGATGATGATGATGATGATGATGATGATG 588
DB 4583 GAATGCTGCTGCTTAAATTAATGAATGATGATGATGATGATGATGATGATGATGATG 4627

QY 589 GAATTCATTAAGAGAGATGATGATGATGATGATGATGATGATGATGATGATGATGATG 648
DB 4628 GAATTCATTAAGAGAGATGATGATGATGATGATGATGATGATGATGATGATGATGATG 4686
QY 649 AGCTGCTGATGAGGATTTTCCCAAAAGATTCATTAATGATGATGATGATGATGATGATG 708
DB 4687 AGCATGCTGATGAGGATTTTCCCAAAAGATTCATTAATGATGATGATGATGATGATGATG 4746
QY 709 GCTTCATTAAGGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATG 768
DB 4747 TCTCCGTCAGATGCTGAC-----TCTTCTCAGCTTAAATGATGATGATGATGATGATG 4801
QY 769 ACTGAGGATTAATTTTAAATTAATGATGATGATGATGATGATGATGATGATGATGATGATG 828
DB 4802 ACTGAGGATTAATTTTAAATTAATGATGATGATGATGATGATGATGATGATGATGATGATG 4860
QY 829 ATATTAATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGAT 888
DB 4861 -CTATTAATTAATTTCTGATGATGATGATGATGATGATGATGATGATGATGATGATGATG 4919
QY 889 CTGAGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATG 948
DB 4920 TTGAAATATGCTGCTGCTGATTAATTAATGATGATGATGATGATGATGATGATGATGATG 4979
QY 949 ATAAATTAATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATG 1008
DB 4980 ATAAATTAATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATG 5033
QY 1009 GTTATTAATTAATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATG 1068
DB 5034 -TGCATTAATTAATTTTAAATTAATGATGATGATGATGATGATGATGATGATGATGATGATG 5091
QY 1069 ACATTTCTGATTAATTAATTAATTAATTAATTAATTAATTAATTAATTAATTAATTAAT 1127
DB 5092 AAATCTCTGATTAATTAATTAATTAATTAATTAATTAATTAATTAATTAATTAATTAAT 5151
QY 1128 GTGCTTTCCAGCTGGAAGAAAGACAAAGTAAATCCCTGGGAGAGAGGAACTGATGTA 1187
DB 5152 GTGCTTTCCAGCTGGAAGAAAGACAAAGTAAATCCCTGGGAGAGAGGAACTGATGTA 5207
QY 1188 AACCCACAAAGAAAGTCTAATCTT----- 1213
DB 5208 AATACCAAAAGAAAGTCTAATCTT----- 5267
QY 1214 ----- 1213
DB 5268 TTGATGAATTAAGAT 5327
QY 1214 -----TGGACCAATTTTATATATATATATATATATATATATATATATATATATAT 1256
DB 5328 ACATTCGAGATGAGCAATGAGCAATTTTATATATATATATATATATATATATATATAT 5386
QY 1257 TAAATCTTCTGATTTAGCAACCACTGCTGATTAAGAGATTTTTCAGGATATAGACAC 1316
DB 5387 AAAATTTTCTCTATTTAGCAACCACTGCTGATTAAGAGATTTTTCAGGATATAGACAC 5446
QY 1317 ATGGAAGAACCAATGCTCCACGCGGAGGCTGATTAATCTATTCMAAATCTGCTTT 1376
DB 5447 ACTGAGAGTCAATCTGTCGAGAGGGGTACTGAGAAAGCTATTCMAAATCTGCTTT 5506
QY 1377 AATTAAGAACCAATGAGGCGCAAAAGTAAAGTAAAGCAATTTGGCAAAATCTTAAGT 1436
DB 5507 AATTAAGAACCAATGAGGCGCAAAAGTAAAGTAAAGCAATTTGGCAAAATCTTAAGT 5561
QY 1437 ATATTTGCTGATGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTG 1496
DB 5562 ATATTTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTG 5607
QY 1497 CAATATCT-----CCTGCTGCTTTTAAAGAAAGTGTGAGAGAAAGATGAGAG 1550
DB 5608 TAATTAATTAATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATG 5667

QY 1551 TGACAAAGTTCCTGACTGCTGCAAGTATTTCTTGCTGTATTAACACCGAGTGACAC 1610
 Db 5668 TAAACCAATTCCTGACTGCTGCAAGTATTTCTTGCTGTATTAACACCGAGTGATAA 5727
 QY 1611 CGGAAGTGTGACCAACACCGGCTTATTTGATGAGGATTTTGAG 1657
 Db 5728 TAGAAGTGTGACTTAACCTGTTGTTGACGCCAAGGATTTTGAG 5774
 RESULT 10
 AAN81381
 ID AAN81381 standard; DNA; 3230 BP.
 XX AAN81381;
 AC AAN81381;
 XX 25-MAR-2003 (revised)
 DT 04-DEC-1990 (first entry)
 DE Entire nucleotide sequence of the human B-cell differentiation factor
 XX chromosomal gene (3.2kb BamHI fragment).
 XX Immunodeficiency disease; cancer therapy; interleukin; lymphocyte; se.
 XX Homo sapiens.
 OS
 XX
 FH Key Location/Qualifiers
 FT exon 553..696
 FT /tag= a
 FT /note= "Exon 1"
 FT 905..937
 FT /tag= b
 FT /note= "Exon 2"
 FT 1883..2011
 FT /tag= c
 FT /note= "Exon 3"
 FT 2118..2216
 FT /tag= d
 FT /note= "Exon 4"
 XX
 PN EP261625-A.
 XX
 PD 30-MAR-1988.
 XX
 PF 21-SEP-1987; 87EP-00113774.
 XX
 PR 20-SEP-1986; 86JP-00223284.
 PR 21-SEP-1987; 87JP-00236842.
 XX
 PA (HONJ/) HONJO T.
 XX
 PI Honjo T, Takatu K, Severinson E;
 DR WPI; 1988-085927/13.
 XX
 DR P-PSDB; AAP81056.
 XX
 PT Recombinant human B-cell differentiation factor - used for diagnosis or
 PT treatment of immunodeficiency diseases, various infections and cancers.
 XX
 PS Example; Fig 5(1)-(5(4); SPP; English.
 XX
 CC Nucleotide sequence of the exon portions of the human BDP chromosomal
 CC gene completely coincided with the nucleotide sequence of human BDP CDNA
 CC (AAN81380). The BDP is useful in the diagnosis or treatment of e.g.
 CC immunodeficiency diseases occurring due to the deficiency of this factor
 CC in a living body and also in the treatment of various infections and
 CC cancers. (Updated on 25-MAR-2003 to correct PR field.)
 CC
 XX Sequence 3230 BP; 1027 A; 545 C; 622 G; 1036 T; 0 U; 0 Other;
 Query Match 36.2%; Score 600.6; DB 1; Length 3230;
 Best Local Similarity 67.8%; Pred. No. 7.4e-109;
 Matches 1212; Conservative 0; Mismatches 384; Indels 191; Gaps 19;

QY 1 AGGCAAACTGAAACATTTGAGAGCTATGAAATGCTTCTGAAATTTGAGTTGCTAGCTC 60
 Db 527 AGGCAAACTGAAACATTTGAGAGCTATGAAATGCTTCTGAAATTTGAGTTGCTAGCTC 586
 QY 61 TTGGGGCTGCTATGTTTTCGCTTGTGCTGTAGAAAATCCCATGAATAGCTGGTGCAG 120
 Db 587 TTGGAGCTGCTATGCTATGATGCTATCCACAAAATTTCCCAAGGACATGGTGTGAAG 646
 QY 121 AGACCTTGACATGCTCTCCACTCATGAACTTGCTGATAGGAGATGGGGTAATTTCT 180
 Db 647 AGACCTTGACATGCTCTCCACTCATGAACTTGCTGATAGGAGATGGGGTAATTTCT 706
 QY 181 TTTGATTCCTACAGCTTTTAAATGATGGGTAATTTGCTGCTAGTT----- 234
 Db 707 TTATGATTCCTACAGCTTTTAAATGATGGGTAATTTGCTGCTAGTT----- 766
 QY 235 -TTTAAAGATCCATTAATGAATGAATGAGTGTATTAATATTAATGAGTAAAC 293
 Db 767 ATATGAGATCTGTATTAATTAATGAATGATCTGAG-CACATTAATGATGAGTAACT 825
 QY 294 ATGTTACTGAGAAATTAATTAATTAATGAATGAACTTACATTAATTAATGAATG 353
 Db 826 ACATACACGAAACATTTCTTTAAATGATGAATGCTGCTGCTGCTGCTGCTGCTGCTG 885
 QY 354 TTGTTTCCTTTCTTTTCAGAACCTGATGATTCCTACTCCGAAATTAATTAATGAAT 413
 Db 886 -TATTTTCCTTTCTTTTCAGAACCTGATGATTCCTACTCCGAAATTAATTAATGAAT 944
 QY 414 AATTTATGATTTATTAATGAATGATTAATGATGATGATGATGATGATGATGATGAT 469
 Db 945 AATTTATGATTTATTAATGAATGATGATGATGATGATGATGATGATGATGATGAT 1004
 QY 470 GTATGATTTATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGAT 529
 Db 1005 TCATTTGATTTATGATGATGATGATGATGATGATGATGATGATGATGATGATGAT 1064
 QY 530 AAT-TATGCTTAATGAATTAATGAATGATGATGATGATGATGATGATGATGATGAT 588
 Db 1065 GAATGCTGATTAATTAATGAATGATGATGATGATGATGATGATGATGATGATGAT 1109
 QY 589 GAATTCATTAAGAGTGAATGATGATGATGATGATGATGATGATGATGATGATGATGAT 648
 Db 1110 GAATTCATTAAGAGTGAATGATGATGATGATGATGATGATGATGATGATGATGAT 1169
 QY 649 AGCTGCTGACGAGATTTCTTCCAAAGATTCATTTGATGCTGATGCTGCTGCTGCTG 708
 Db 1170 AGCTGCTGACGAG-ATTTCTTCCAAAGATTCATTTGATGCTGATGCTGCTGCTGCT 1228
 QY 709 GCTCCATTCACCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTG 768
 Db 1229 TCTCCGTCAGTCTGAC-----TCTTTCACCTGATGCTGCTGCTGCTGCTGCTGCT 1283
 QY 769 ACTTGGGTTATATTTTATGAATTAATGCTGATGATGATGATGATGATGATGATGATG 828
 Db 1284 ACTCAGATTAATTTTATGAACCATGATGATGATGATGATGATGATGATGATGATGAT 1342
 QY 829 ATATTAATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGAT 888
 Db 1343 -CTATTAATTAATTTCTGATGATGATGATGATGATGATGATGATGATGATGATGAT 1400
 QY 889 CTGAGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGAT 948
 Db 1401 TGAATATG---CTGCTGATTAATTAATTAATTAATTAATTAATTAATTAATTAATTA 1456
 QY 949 ATAAATTAACAGCTGATGATGATGATGATGATGATGATGATGATGATGATGATGATG 1008
 Db 1457 ATAAATTAACAGCTGATGATGATGATGATGATGATGATGATGATGATGATGATGATG 1513
 QY 1009 GTTGTATTAATGCTGATGATGATGATGATGATGATGATGATGATGATGATGATGATG 1068
 Db 1514 ----ATTAACATTCATTAATTAATTAATTAATTAATTAATTAATTAATTAATTAAT 1568
 QY 1069 ACACTTCAGTATTAATTAATTAATTAATTAATTAATTAATTAATTAATTAATTAATTA 1127

Db	1569	AAAGCTCCAGTAATACATATAAGCTGACTACTCTTTTGAAAATTTTATCTTAATATGTC	1628
Qy	1128	GTGGTTTCCCACTGGAAGACACACAGTAAAACTCTTGAGAGAGGAACTTGCTGA	1187
Db	1629	GTGGTTTGTGCTCTGAGAA-----ACAAACAAAACTCTTGAGAGAGGAACTCATGTA	1684
Qy	1188	AAACCCACAAACCAAGCTAACTTT-----	1214
Db	1685	AATACACAAACAAAGCTTAACCTTTGTGACCAAAATGTTTTAATTAATTTTTPAA	1744
Qy	1215	-----	1214
Db	1745	TTGATGAATTAAGTAATATATTAATGTGTCATTAATGATGTTTGAAGTATGAT	1804
Qy	1215	-----TGACCAAAATTTTATGCTCTGTTTGATGAATTAATTTT	1256
Db	1805	ACATTGCAGATGCAATGAGCCAAATTTTATATCCTTGCTGATTAATTTTGA -TTTT	1863
Qy	1257	TAAATATCTTCTCATTTAGCACCAACTGTGCAATTAAGAATTTTCAGGCTATGACAC	1316
Db	1864	AAAAATTTTCTCATTTTGAACAACACTGTGCACTGMAAAAATCTTTCAGGAAATAGGCAC	1923
Qy	1317	ATTGAAGAACCAAACTGCCCACGGGAGGCTGTGATTAACATATCCAAACTTGCTTT	1376
Db	1924	ACTGAGAGTCAAACTGTGCAGAGGGGTACTGTGAAAGACTATTCAAAACTGTGCTT	1983
Qy	1377	AATTAAGAACACATAGAGCGCCAAAAAGTAATTAAGACATTTGCAAAAATTAACT	1436
Db	1984	AATTAAGAAATATCAATGTAGCGGCAAAAAGTAAGTTACACACTTCATAGGAAGCTATTT	2043
Qy	1437	ATATTTGTCTGACTCTGCTGTTTTTTTTTTTTTTTAAACAGATTTGACAGTTTCTTA	1496
Db	2044	TGTCCTGGCTG-----TGCCATATTTCTATGAGATTTGACAGTTTCTTG	2085
Qy	1497	CAATATCT-----CCTGTTCTTTTAAACAGAAAGGTGCGAGAAAGATGAGAG	1556
Db	2086	TAAATACCTATTTGCTATTTTCTTTTTCACAGAAAAAGTGTGAGAAAGACCGAGAG	2145
Qy	1551	TGACAAAGTTCCTAGACTCTGCAAGTATTTCTGTGTAATAACACCGAGTGCACAC	1610
Db	2146	TAAACCAATTCCTAGACTCTGCAAGAGTTTCTTGCTTAATGAACCCGAGTGGATTA	2205
Qy	1611	CGAAAGTGGAAACAAACCGGCTTATTTGATGAGAGATTTGGAG	1657
Db	2206	TAGAAAGTTGAGACTTAACTGTTTGTGACGCAAGATTTTGGAG	2252
RESULT 11			
AAQ74056			
ID	AAQ74056	standard; DNA; 3230 BP.	
XX	AAQ74056;		
XX	29-JAN-1996	(first entry)	
DT	Human interleukin-5.		
DE	Interleukin-5; primer; mRNA; specificity; pharmaceutical; ss.		
KW	Homo sapiens.		
OS	16-MAY-1995.		
XX	05-NOV-1993;	93JP-00275852.	
FP	05-NOV-1993;	93JP-00275852.	
PR	(HITB) HITACHI CHEM CO LTD.		
PA	WPI; 1995-211627/28.		
DR			

XX A primer for the detection and the determ. of a specific messenger RNA -
PT can detect and determine specific mRNA(s) with high reliability.
PT
XX
XX
PS Example 22; Page 22-24; 35pp; Japanese.
XX
XX AAO74056 is the human interleukin-5 gene. This gene is amplified by the
CC primers AAO74031-Q74032. The primers are used specifically for the
CC detection and isolation of this sequence. They have the advantage of high
CC sensitivity and reliability and are useful in the pharmaceutical industry
XX
XX Sequence 3230 BP; 1027 A; 545 C; 622 G; 1036 T; 0 U; 0 Other;
SQ

Query Match	36.2%;	Score 600.6;	DB 2;	Length 3230;
Best Local Similarity	67.8%;	Pred. No. 7.4e-109;		
Matches 1212; Conservative	0;	Mismatches 384;	Indels 191;	Gaps 19

OY	1	AGGCAAAACA	CGAACATTTTCAGAC	CTATGAAAGTCTCTAA	TTTGAGTTGCTAG	CTC	60
Db	527	AGCGAAGACG	AAGACGTTTCAGAC	CCATGAGGATGCTTCT	GCATTTGAGTTGCTAG	CTC	586
OY	61	TTGAGGCGCT	CTATGTTCTGCGCT	TTTGCTGAGAAATCC	CAATAGACTGCTG	CAG	120
Db	587	TTGAGGCTGC	CTTAGTGATGCTCAT	CCCAAGAAATTC	CCCAAGATGCTAT	GTGAGAA	646
OY	121	AGACCTTGAC	ACGCTCCCACTCAT	ATGGAATGCGTATG	GGGATAGGGGTA	ATTTCT	180
Db	647	AGACCTTGAC	ACGCTCTTCTACT	ATGGAATGCGTATG	GGGATAGGGGTA	ATTTCT	706
OY	181	TTTTCATTC	CAACAGCTCTTTAA	ATGATGGGTATTTG	TGTTGCTGCTAGT	-----	234
Db	707	TTATGATTC	CAACAGCTCTTAA	ATGATGGGTATTTG	TGTTGCTGCTAGT	-----	766
OY	235	TTTAAAGATC	CAATTCATATATG	AATGATGCTTAA	TATATATATATG	GCTAAC	293
Db	767	ATATAGAGAT	CTGTATATATATG	AATGATGCTTAA	TATATATATATG	GCTAAC	825
OY	294	ATGTTACG	CAAGAAATTAATTA	ATTAAGTTATGAA	CCCTACATATCA	ATTAATAATG	353
Db	826	ACATAC	CAAGAAATTCGT	TAAGTTATGAA	TGCTGCTGCTG	TAATAATG	885
OY	354	TTGTTTCCT	TTCTTTTCAGAAC	CTGATGATTCCT	ACTCTGAAATTA	ATAATGTA	413
Db	886	TATTTCTCT	TCCTCCAGCTCTG	AGATTCCTGTTT	CCGTACATATA	ATATGTA	944
OY	414	AAATTAATG	ATTTGAATAATG	ATATCATGATC	AG-----	TTTCA	469
Db	945	AAATTAATG	ATTTGAATAATG	ATATCATGATC	AG-----	TTTCA	1004
OY	470	GTATCAGT	TAACATTTGGAT	ATTTAATTTA	TCATTTTGT	TTTATG	529
Db	1005	TCATTTAGT	ATCAATTTGAACT	ATTTAATTTTCT	ATATTTTGT	TTTATG	1064
OY	530	AAAT-TATG	TCCTTATGATAT	TTTGAATGATG	GGCTCTCA	ATATTA	588
Db	1065	GAATGCTG	TAATTAATAATG	AGATGATCTT	-----	-TTATCA	1109
OY	589	GAATTCAT	TAAGCAAGTGA	TCACAGCCCTTT	TGATGTTGTCA	GTCTCA	648
Db	1110	GAATTCAT	TAAGCAAGTGA	TCACAGCCCTTT	TGATGTTGTCA	GTCTCA	1165
OY	649	AGCCTCGT	CAAGGATTTCTT	TCGAAAGAAATTC	ATTTGGATCAG	AGATATCT	708
Db	1170	AGCATCGT	CAAGGATTTCTT	TCGAAAGAAATTC	ATTTGGATCAG	AGATATCT	1222
OY	709	GCTTCAT	TCACTGCTGCTT	GCTTCTCA	CCCTCA	AGTTTTCT	768
Db	1229	TCCTCGCTG	CACTTCTGAC	-----	TCCTTCTCA	CTCAACG	1283
OY	769	ACTTGGGG	TTATATTTTGA	ATTAATGCTAG	CAATGAAATAT	CACTGAA	828
Db	1284	ACTGAAAT	TAATATTTTGA	ATTAATGCTAG	CAATGAAATAT	CACTGAA	1342

is a cDNA encoding Human IL5, a target of the antisense compounds of the
invention
Sequence 3230 BP; 1027 A; 545 C; 622 G; 1036 T; 0 U; 0 Other;
Query Match 36.2%; Score 600.6; DB 8; Length 3230;
Best Local Similarity 67.8%; Pred. No. 7.4e-109;
Matches 1212; Conservative 0; Mismatches 384; Indels 191; Gaps 19;
QY 1 AGGCAACACTGAACTTTCAGAGCTATGAGAACTCTGAAATTTGAGTTTGTCTACCTC 60
DB AGGCAACAGCAAGAGCTTTCAGAGCAATGAGAGCTTTCGATTTGAGTTTGTCTACCTC 586
QY 61 TTGGAGGCTGCTATGTTTCTGCTTTGCTGTGAGAAAATCCCATGATAGACTGTGTCAG 120
DB TTGGAGGCTGCTATGATGATGCTATCCACAGAAATCCCAAGTGCATTTGGTGAAG 646
QY 121 AGACCTTGACACCTGCTCCACATGGAATTTGGCTGATPAGGGAGTATTTTCT 180
DB AGACCTTGACACCTGCTCTACTGATGAACTGCTGATGAGCAATGAGTAAATTTTCT 706
QY 181 TTTGATTTCTACAGCTCTTAAATGATGGTAATTTGGTGGTATGTT----- 234
DB TTTGATTTCTACAGCTCTGTAAGTGAAGTGAATGATGATGATGATGATGATGATGAT 766
QY 235 -TTTAAAGATTCATTAATGATGAGTGAATGAGTGAATGATGATGATGATGATGATGAT 293
DB ATATAGGATCTGTTATTAATTAATGATGATGATGATGATGATGATGATGATGATGAT 825
QY 294 ATGTTACGAGAAATTAATTAATTAATTAATTAATTAATTAATTAATTAATTAATTAAT 353
DB ACATACACAGAAATTAATTAATTAATTAATTAATTAATTAATTAATTAATTAATTAAT 885
QY 354 TTGTTCTCTTCTTTTTCAGAACTGATGATGATGATGATGATGATGATGATGATGATGAT 413
DB -TATTTCTCTTCTCTCTGAGACTGAGGATTCCTGTTCTGTAATTAATTAATTAATTAAT 944
QY 414 AAATTAATGATTAATTAATTAATTAATTAATTAATTAATTAATTAATTAATTAATTAAT 469
DB AAATTAATGATTAATTAATTAATTAATTAATTAATTAATTAATTAATTAATTAATTAAT 1004
QY 470 GTATCAGTTAATGATTAATTAATTAATTAATTAATTAATTAATTAATTAATTAATTAAT 529
DB TCATTAATGATTAATTAATTAATTAATTAATTAATTAATTAATTAATTAATTAATTAAT 1064
QY 530 AAAT-TATGCTTATGATTAATTAATTAATTAATTAATTAATTAATTAATTAATTAATTAAT 588
DB GAATGCTGATTAATTAATTAATTAATTAATTAATTAATTAATTAATTAATTAATTAATTAAT 1109
QY 589 GAATTCATTAAGCAAGTGAATGAGCTTTTGTGATGATGATGATGATGATGATGATGATGAT 648
DB GAATTCATTAAGCAAGTGAATGAGCTTTTGTGATGATGATGATGATGATGATGATGATGAT 1169
QY 649 AGCCTGCTGAGGATTTCTTTCCAAAAGAAATTCATTAATGAGTCAAGATTAATTTCTTAG 708
DB AGCATCGTGAGG-ATTCTTCCAGAAAGATTCACATGAGTGAAGGCTGCTAG 1228
QY 709 GCTTCATTCACCTGCTGTTGCTTCTTCTTCTTCTTCTTCTTCTTCTTCTTCTTCTTCTTCT 768
DB TCTTCGTCAGGTTCTGAC-----TCTTCTTCTTCTTCTTCTTCTTCTTCTTCTTCTTCTTCT 1283
QY 769 ACTTGGGGTTATTTTATGAAATTAATGATGATGATGATGATGATGATGATGATGATGATGAT 828
DB ACTGAGATTAATTTTATGAAATTAATGATGATGATGATGATGATGATGATGATGATGATGAT 1342
QY 829 ATATTAATGATCCTTCACATTAATTAATTAATTAATTAATTAATTAATTAATTAATTAATTAAT 888
DB -CTATTAATTAATTAATTAATTAATTAATTAATTAATTAATTAATTAATTAATTAATTAAT 1400
QY 889 CTGAGAT 948
DB TGAATATG---CTGAGTATTAATTAATTAATTAATTAATTAATTAATTAATTAATTAATTAAT 1456

QY 949 ATAAATTAACAGCTAGAACTATACAGAGAAATTTGAGGTGAGGTAATCACTAAGGCA 1008
DB ATAAATTAACAGCTAGAACTATACAGAGAAATTTGAGGTGAGGTAATCACTAAGGCA 1513
QY 1009 GTTGAATTAACCTGTAAGCACTTATTTTCAATTAATCACTTCACTTATATATATGTA 1068
DB GTTGAATTAACCTGTAAGCACTTATTTTCAATTAATCACTTCACTTATATATATGTA 1568
QY 1069 ACATTTCTCAGTAATTAATTAATTAATTAATTAATTAATTAATTAATTAATTAATTAATTAAT 1127
DB AAATCTCTCAGTAATTAATTAATTAATTAATTAATTAATTAATTAATTAATTAATTAATTAAT 1628
QY 1128 GTGTTTCCCACTGAGAAAGACAAAGTAATTAATTAATTAATTAATTAATTAATTAATTAAT 1187
DB GTGTTTCCCACTGAGAAAGACAAAGTAATTAATTAATTAATTAATTAATTAATTAATTAAT 1684
QY 1188 AACCCACAAACAAAGCTTAATTT----- 1214
DB AATACCAACAAACAAAGCTTAATTTGAGCAACAAATTTGTTTATTAATTAATTTTAA 1744
QY 1215 ----- 1214
DB TTAGATTAATTAATTAATTAATTAATTAATTAATTAATTAATTAATTAATTAATTAATTAAT 1804
QY 1215 -----TGACCAATTTTATGCTTTGTTGATGATTAATTTT 1256
DB ACATTCAGAAATGAGCAATGAGCAATTTTATTTTATTTTATTTTATTTTATTTTATTTT 1863
QY 1257 TAAATCTCTCATTATTAAGCAACATGATTAATTAATTAATTAATTAATTAATTAATTAATTAAT 1316
DB AAAATTTTCTCTATTTAGCAACATGATTAATTAATTAATTAATTAATTAATTAATTAATTAAT 1923
QY 1317 ATTGAAGAACAAATGACCAAGGAGGAGCTGTGATTAATTAATTAATTAATTAATTAATTAAT 1376
DB ACTGAGAGTCAATGATGAGAGGAGGAGCTGTGATTAATTAATTAATTAATTAATTAATTAAT 1983
QY 1377 AATTAAGAACCAATGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAG 1436
DB AATTAAGAACCAATGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAG 2043
QY 1437 ATATTTGCTGACCTGCGCTTTT-----TGCCATTTCTATGAAATTAATTAATTTCTCTA 1496
DB TGTCTGCTG-----TGCCATTTCTATGAAATTAATTAATTTCTCTG 2085
QY 1497 CAATATCT-----CCTGCTTTCTTTTAAACAGAAAGTGTGACAGAAAGATGAGAG 1550
DB TAATACCTATGCTATTTTCTTTTCAAGAAAGTGTGAGAAAGAAAGACGAGAG 2145
QY 1551 TGACAAAGTCTGACCTGACCTGCAAGTATTTCTTGTGTAATTAATTAATTAATTAATTAAT 1610
DB TAAACCAATTCCTGACCTGACCTGCAAGTATTTCTTGTGTAATTAATTAATTAATTAATTAAT 2205
QY 1611 CGGAAAGTTGAGAAACCGGCTTATTTGATGAGAAATTTTGGAG 1657
DB TAAAGTTGAGAACTAACTGTTTGTGAGCAACCAAGATTTTGGAG 2252

RESULT 14
ADN12146
ID ADN12146 standard; DNA; 3230 BP.
XX ADN12146;
DT 17-JUN-2004 (first entry)
XX
DE Interleukin 5 beta IL5.
XX major histocompatibility class I; MHC-I; MHC-II; Cytostatic;
XX EBV-associated cancer; Hodgkin's lymphoma; nasopharyngeal carcinoma;
XX gastric carcinoma; Burkitt's lymphoma; T-cell lymphoma; B-cell lymphoma;
XX parotid carcinoma; breast carcinoma; leiomyosarcoma; de.
OS Homo sapiens.

XX MO2004027036-A2.
 XX 01-APR-2004.
 XX 19-SEP-2003; 2003WO-US029684.
 XX 19-SEP-2002; 2002US-0411990P.
 XX (UYJO) UNIV JOHNS HOPKINS SCHOOL MEDICINE.
 XX Ambinder RF, Yang Y, Borrello IM, Levitsky HI;
 XX WPI; 2004-295406/27.
 XX
 XX New human cell line modified to comprise and express genes encoding
 XX immunomodulators and an antigen of Epstein-Barr virus (EBV), useful for
 XX inducing or stimulating an immune response in a human to EBV-associated
 XX cancer.
 XX
 XX Claim 6; SEQ ID NO 39; 218BP; English.
 XX
 XX The present invention relates to a human cell line, which lacks major
 XX histocompatibility class I (MHC-I) and MHC-II antigens and which has been
 XX modified to comprise and express a gene encoding an immunomodulator and a
 XX gene encoding an antigen of Epstein-Barr virus (EBV). The human cell
 XX line, compositions and methods are useful for inducing or stimulating an
 XX immune response in a human to an EBV-associated cancer, where the human
 XX has or is at risk for Hodgkin's lymphoma, nasopharyngeal carcinoma,
 XX gastric carcinoma, Burkitt's lymphoma, T-cell lymphoma, B-cell lymphoma,
 XX parotid carcinoma, breast carcinoma, and leiomyosarcoma. The present
 XX sequence represents a nucleotide sequence associated with the cell line
 XX of the invention.
 XX
 XX Sequence 3230 BP; 1027 A; 545 C; 622 G; 1036 T; 0 U; 0 Other;

Query Match 36.2%; Score 600.6; DB 12; Length 3230;
 Beest Local Similarity 67.8%; Pred. No. 7.4e-109;
 Matches 1212; Conservative 0; Mismatches 384; Indels 191; Gaps 19;

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 DB 527 AGGCAAAAGCAAGAGTTTCAGAGCCTAGAGATCTCTGATTTGAGTTGCTAGCTC 586
 QY 61 TTGGGGCTGCTATGTTCTGCTTCTGCTGTAAGAAATCCATGAAATGACTGTGGCAG 120
 DB 587 TTGGAGCTGCTTACCTGATGCTATGCCATCCACAGAAATTCCTCAGATGCTGTAAG 646
 QY 121 AGACCTTGACATCTGCTCCACTCATCGAATCTGCTGATAGGCGATGGGTAAATTTCT 180
 DB 647 AGACCTTGACATCTGCTTCTACTCATGCAATCTCTGATAGGCGATGTAATTTCT 706
 QY 181 TTTGATTCCTACATCTTTTAAATGCAATGGGTAAATGGTGTGCTAGTT----- 234
 DB 707 TTATGATTCCTACATCTGTAAGTCAATGTAATGTAATGTAATGTAATGTAATGTAAT 766
 QY 235 -TTTAAAGATCATTATCAATATGATGATGATGATGATGATGATGATGATGATGATGAT 293
 DB 757 ATATGAGATCTGTTATTAATTAAGATTCAG-CAATATGATGATGATGATGATGATGAT 825
 QY 234 ATGTTATCTCAAGAAATATATATTAAGTAAAGTAAAGTAAAGTAAAGTAAAGTAAAGTAA 353
 DB 826 ACATACCAAGCAAACTCTGTTAAAGTAAAGTAAAGTAAAGTAAAGTAAAGTAAAGTAA 885
 QY 354 TTGTTTCCTTTCTTTTCAAGACCTGATGATCTACTCTGAAATATTAATGTAATGTAAT 413
 DB 886 -TATTTCTTTCTCTCCAGACTCTGAGATTCCTGTTCTCTGATCAATAAATGTAATGTAAT 944
 QY 414 AATATATGATTTGATTAATGATATCAATGATGATGATGATGATGATGATGATGATGATGAT 469
 DB 945 AATATATGATTTGATTAATGATGATGATGATGATGATGATGATGATGATGATGATGAT 1004
 QY 470 GATATGATTAATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGAT 529

DB 1005 TCATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGAT 1064
 QY 530 AAT-ATGCTGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGAT 588
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 QY 589 GAATGCTGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGAT 648
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 QY 709 GCTGCTGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGAT 768
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 QY 829 ATATTAATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGAT 888
 DB 1343 -CTATATTAATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGAT 1400
 QY 889 CTGAGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGAT 948
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 DB 1457 ATAAATTAAGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGAT 1513
 QY 1009 GTTGTATTAATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGAT 1068
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 QY 1188 AACCCCAAAACAAAGCTTACTTT----- 1214
 DB 1685 AATACCAAAACAAAGCTTACTTT----- 1744
 QY 1215 ----- 1214
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 QY 1215 -----TGAACAAATTTTATGCTGTTGATGATGATGATGATGATGATGATGAT 1256
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 QY 1257 TAAATCTTCTCATTTAGCAACAACTGTCATTAAGAAATTTTTCAGGTAATGATGATGAT 1316
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 QY 1317 ATGAAAGAACAACTGCTGCAAGGAGGCTGTGATTAATGATGATGATGATGATGATGAT 1376
 DB 1924 ACTGAGAGTCAAACTGTCAGGAGGCTGTGATTAATGATGATGATGATGATGATGATGAT 1983
 QY 1377 AATTAAGAACAACTGTCAGGAGGCTGTGATTAATGATGATGATGATGATGATGATGAT 1436
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 RESULT 15
 ADR12056
 ID ADR12056 standard, DNA; 3230 BP.
 XX ADR12056;
 AC ADR12056;
 XX 23-SEP-2004 (first entry)
 DT 23-SEP-2004 (first entry)
 XX Human interleukin-5 (IL-5) DNA.
 DE Human interleukin-5; IL-5; gene; ds; antisense oligonucleotide;
 XX Human; interleukin-5; IL-5; gene; ds; antisense oligonucleotide;
 KM IL-5 receptor a; phosphorothioate; 2'-O-methoxyethyl sugar moiety;
 KM 5-methylcytosine; IL-5 signal transduction; apoptosis;
 KM eosinophilic syndrome; asthma; antilethemic; cytostatic.
 XX
 OS Homo sapiens.
 XX US2004121376-A1.
 XX 24-JUN-2004.
 PD 06-OCT-2003; 2003US-00679532.
 PF 06-OCT-2003; 2003US-00679532.
 XX 26-MAR-1999; 99US-00280799.
 PR 17-MAR-2000; 2000MO-US007318.
 PR 07-MAR-2001; 2001US-00800629.
 XX
 PA (DEAN/) DEAN N M.
 PA (KAR/) KARAS J G.
 PA (MCKA/) MCKAY R.
 PA (MANO/) MANOHARAN M.
 XX Dean NM, Karas JG, McKay R, Manoharan M;
 PI WPI; 2004-479669/45.
 DR GENBANK; X12706.
 XX
 PT New antisense compound modulating interleukin-5 signal transduction,
 useful in promoting apoptosis and in treating eosinophilic syndrome or
 asthma.
 PT
 XX Example 22; SEQ ID NO 78; 77bp; English.
 PS
 XX
 CC -5 (IL-5) signal transduction. The antisense compound is an antisense
 CC oligonucleotide targeted to a nucleic acid molecule encoding a mammalian
 CC IL-5 or IL-5 receptor a, where the antisense compound modulates the
 CC expression of mammalian IL-5 or IL-5 receptor a. The antisense
 CC oligonucleotide comprises at least one modified internucleoside linkage,
 CC i.e. a phosphorothioate linkage, or a peptide nucleic acid, at least one
 CC modified sugar moiety, i.e. a 2'-O-methoxyethyl sugar moiety, and at
 CC least one modified nucleobase, i.e. 5-methylcytosine. Altering the ratio
 CC of the isoforms of mammalian IL-5 receptor a in mammalian cells or
 CC tissues comprises contacting the cells or tissues with an antisense
 CC compound so that the ratio of the mammalian IL-5 receptor a isoforms is
 CC altered. Treating a mammal having a disease or condition associated with
 CC IL-5 signal transduction or IL-5 or IL-5 receptor a expression, or a
 CC disease or condition characterised by a reduction in apoptosis comprises

CC administering to the mammal a therapeutic or prophylactic amount of an
 CC antisense compound so that IL-5 signal transduction, IL-5 or IL-5
 CC receptor a expression, or IL-5 receptor a is modulated, the ratio of IL-5
 CC receptor a isoforms is altered, or expression of membrane IL-5 receptor a
 CC is modulated. The antisense compounds, methods and compositions are
 CC useful in promoting apoptosis and in treating eosinophilic syndrome and
 CC asthma. This sequence represents human IL-5 DNA of the invention.
 CC
 XX
 SQ Sequence 3230 BP; 1027 A; 545 C; 622 G; 1036 T; 0 U; 0 Other;
 Query Match 36.2%; Score 600.6; DB 12; Length 3230;
 Best Local Similarity 67.8%; Prid. No. 7.4e-109;
 Matches 1212; Conservative 0; Mismatches 384; Indels 191; Gaps 19;
 Qy 1 AGCGAAACCTGAAACATTTGAGAGCTATGAGAAATGCTTGTGAATTTGAGTTGCTAGCTC 60
 Db 527 AGCGAAACGAGAAACGTTTCTGAGCCATGAGAGATGCTTGTGCAATTTGAGTTGCTAGCTC 586
 Qy 61 TTGGGGCTGCTATGTTTCTGCTTGGCTTGTGAGAAATCCCATGAATAGCTGGTGCAG 120
 Db 587 TTGGAGCTGCTATGTTTCTGCTTGGCTTGTGAGAAATCCCATGAATAGCTGGTGCAG 646
 Qy 121 AGACCTTGACAGCTGCTTCCACATGAGAACTTGGCTATGAGGAGTGGGTAATTTCT 180
 Db 647 AGACCTTGACAGCTGCTTCTATGAGAACTTGGCTATGAGGAGTGGGTAATTTCT 706
 Qy 181 TTTTGATTTCTGAGCTTTTAAATGATGAGTAAATTTGGTGTGGTGGTAACTT----- 234
 Db 707 TTATGATTTCTGAGCTTTTAAATGATGAGTAAATTTGGTGTGGTGGTAACTT----- 766
 Qy 235 -TTTAAAGATCATATATCAATTAATGAAGTATGAGTGTAAATATATATATATATGAGTACC 293
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 Db 826 ACATCACAGCAACATCTGTTTAAAGTATGAGTGTAAATATATATATATATATGAGTACC 885
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 Qy 470 GTATGATTAATGATTTGATTAATGATTAATGATTAATGATTAATGATTAATGATTAATG 529
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 Qy 530 AAAT-TATGCTTATGATTAATTAATGATTAATGATTAATGATTAATGATTAATGATTAATG 588
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 Qy 769 ACTTGAGGTTATATTTTGAATTAATGATTAATGATTAATGATTAATGATTAATGATTAATG 828
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 Qy 829 ATATTAATGATTAATGATTAATGATTAATGATTAATGATTAATGATTAATGATTAATGAT 888
 Db 1343 -CTATTAATTAATATCTGATTAATTAATTAATTAATTAATTAATTAATTAATTAATTAATTA 1400

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GenCore version 5.1.6
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OM nucleic - nucleic search, using sw model

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(without alignments)
7814.559 Million cell updates/sec

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Perfect score: 1558
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Gapop 10.0, Gapext 1.0

Searched: 7297361 seqs, 3241162794 residues

Total number of hits satisfying chosen parameters: 14594722

Minimum DB seq length: 0
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Post-processing: Minimum Match 0%

Maximum Match 100%

Database :

Published Applications NA:*

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Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

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1	1658	100.0	1658	9	US-09-755-633-18
2	1658	100.0	1658	19	US-10-787-382-18
C 3	1631.8	98.4	1658	9	US-09-755-633-19
C 4	1631.8	98.4	1658	19	US-10-787-382-19
5	634.6	36.3	3241	22	US-10-880-101A-91
6	600.6	36.2	3230	9	US-09-800-629A-78
7	600.6	36.2	3230	19	US-10-679-532-78

8	600.6	36.2	3230	22	US-10-880-101A-89	Sequence 89, Appl
9	406	24.5	671	9	US-09-755-633-21	Sequence 21, Appl
10	406	24.5	671	19	US-10-787-382-21	Sequence 21, Appl
11	171.8	10.4	610	9	US-09-755-633-4	Sequence 4, Appl
12	171.8	10.4	610	9	US-09-755-633-6	Sequence 6, Appl
13	171.8	10.4	610	14	US-10-218-654-80	Sequence 80, Appl
C 14	171.8	10.4	610	14	US-10-218-654-82	Sequence 82, Appl
C 15	171.8	10.4	610	15	US-10-262-439-80	Sequence 80, Appl
C 16	171.8	10.4	610	15	US-10-262-439-82	Sequence 82, Appl
17	171.8	10.4	610	15	US-10-787-382-4	Sequence 4, Appl
C 18	171.8	10.4	610	19	US-10-787-382-6	Sequence 6, Appl
19	150.6	9.1	5397	15	US-10-311-455-1017	Sequence 1017, Ap
C 20	145.8	8.8	402	9	US-09-755-633-7	Sequence 7, Appl
C 21	145.8	8.8	402	9	US-09-755-633-8	Sequence 8, Appl
C 22	145.8	8.8	402	14	US-10-218-654-83	Sequence 83, Appl
C 23	145.8	8.8	402	14	US-10-218-654-84	Sequence 84, Appl
C 24	145.8	8.8	402	15	US-10-262-439-83	Sequence 83, Appl
C 25	145.8	8.8	402	15	US-10-262-439-84	Sequence 84, Appl
C 26	145.8	8.8	402	19	US-10-787-382-7	Sequence 7, Appl
C 27	145.8	8.8	402	19	US-10-787-382-8	Sequence 8, Appl
C 28	134.6	8.1	5397	15	US-10-311-455-1018	Sequence 1018, Ap
C 29	131.6	7.9	345	9	US-09-755-633-9	Sequence 9, Appl
C 30	131.6	7.9	345	9	US-09-755-633-11	Sequence 11, Appl
C 31	131.6	7.9	345	14	US-10-218-654-85	Sequence 85, Appl
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C 33	131.6	7.9	345	15	US-10-262-439-85	Sequence 85, Appl
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C 36	131.6	7.9	345	19	US-10-787-382-11	Sequence 11, Appl
C 37	117.4	7.1	816	17	US-10-191-997-90	Sequence 90, Appl
C 38	117.4	7.1	816	21	US-10-641-643-1236	Sequence 1236, Ap
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43	108	6.5	6727	19	US-10-679-532-1	Sequence 1, Appl
44	96.2	5.8	858	16	US-10-295-074-8	Sequence 8, Appl
45	96.2	5.8	858	16	US-10-295-074-10	Sequence 10, Appl

ALIGNMENTS

RESULT 1
US-09-755-633-18
Sequence 18, Application US/09755633
Patent No. US20020127200A1
GENERAL INFORMATION:
APPLICANT: Yang, Shumin
APPLICANT: McCall, Catherine A.
TITLE OF INVENTION: CANINE AND FELINE IMMUNOREGULATORY PROTEINS, NUCLEIC
FILE REFERENCE: IM-2-C1-C1
CURRENT APPLICATION NUMBER: US/09/755, 633
CURRENT FILING DATE: 2001-01-05
PRIOR APPLICATION NUMBER: 09/322,409
PRIOR FILING DATE: 1999-05-28
PRIOR APPLICATION NUMBER: 60/087,306
PRIOR FILING DATE: 1998-05-29
NUMBER OF SEQ ID NOS: 21
SOFTWARE: PatentIn Ver. 2.1
SEQ ID NO 18
LENGTH: 1658
TYPE: DNA
ORGANISM: Canis familiaris
FEATURE:
NAME/KEY: Intron
LOCATION: (1171)..(1373)
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US-09-755-633-18

Query Match 100.0%; Score 1658; DB 9; Length 1658;
Best Local Similarity 100.0%; Pred. No. 0;
Matches 1658; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

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QY 721 TCTGCTGTTGGCTTCTCACTCAAGCTTTTCTGAAAGTACTGCAACTTGGGCTTAT 780
DB 721 TCTGCTGTTGGCTTCTCACTCAAGCTTTTCTGAAAGTACTGCAACTTGGGCTTAT 780
QY 781 ATTTTGAATTAATTAATTAATTAATTAATTAATTAATTAATTAATTAATTAATTAATTAATTA 840
DB 781 ATTTTGAATTAATTAATTAATTAATTAATTAATTAATTAATTAATTAATTAATTAATTAATTA 840
QY 841 ACTTCACATATTAATTAATTAATTAATTAATTAATTAATTAATTAATTAATTAATTAATTAATTA 900
DB 841 ACTTCACATATTAATTAATTAATTAATTAATTAATTAATTAATTAATTAATTAATTAATTAATTA 900
QY 901 ATGGTCATATTAATTAATTAATTAATTAATTAATTAATTAATTAATTAATTAATTAATTAATTA 960
DB 901 ATGGTCATATTAATTAATTAATTAATTAATTAATTAATTAATTAATTAATTAATTAATTAATTA 960
QY 961 GCTAGAACCTATACGAGAAATTCGAGGTGAGGTAATCAATTAAGGCAAGTTGATTAATAC 1020
DB 961 GCTAGAACCTATACGAGAAATTCGAGGTGAGGTAATCAATTAAGGCAAGTTGATTAATAC 1020
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QY 1021 CTGTAAGCATTTATTTTTCATTAATCATTTTCAATTAATCATTTGTAACACTTCTCAGT 1080
DB 1021 CTGTAAGCATTTATTTTTCATTAATCATTTTCAATTAATCATTTGTAACACTTCTCAGT 1080
QY 1081 AATTATTAATCACTATTTTCTTAATGTAATTTTACTTATGTAATTAAGTGGTTTCCACC 1140
DB 1081 AATTATTAATCACTATTTTCTTAATGTAATTTTACTTATGTAATTAAGTGGTTTCCACC 1140
QY 1141 TGGAAAAAGACACAGTAATAAACTCTTGGAGAGAGGAACTTGTGTAAACCCACAAAAC 1200
DB 1141 TGGAAAAAGACACAGTAATAAACTCTTGGAGAGAGGAACTTGTGTAAACCCACAAAAC 1200
QY 1201 AAAGTCTAATTTTGGACCAAAATTTTATGCTTGTGTAATTAATTAATTTTAA 1260
DB 1201 AAAGTCTAATTTTGGACCAAAATTTTATGCTTGTGTAATTAATTAATTTTAA 1260
QY 1261 ATCTTCTCATTTTACGACCACTGTGATTAAGAAAGTTTTCAGGGTATAGACACTTG 1320
DB 1261 ATCTTCTCATTTTACGACCACTGTGATTAAGAAAGTTTTCAGGGTATAGACACTTG 1320
QY 1321 AAGAACCAACCTGCCACCGGGAGGCTGTGATTAATTAATTTCCAAAACCTGTCTTAATA 1380
DB 1321 AAGAACCAACCTGCCACCGGGAGGCTGTGATTAATTAATTTCCAAAACCTGTCTTAATA 1380
QY 1381 AAAGAACACATAGAGCGCCAAAAGTAAGTTAAAGACATTTGGCAAAAACCTTAAGTAT 1440
DB 1381 AAAGAACACATAGAGCGCCAAAAGTAAGTTAAAGACATTTGGCAAAAACCTTAAGTAT 1440
QY 1441 TTGCTGACCTGCGCTTTTCTTTTCTTTTCTTTTCTTTTCTTTTCTTTTCTTTTCTTTTCT 1500
DB 1441 TTGCTGACCTGCGCTTTTCTTTTCTTTTCTTTTCTTTTCTTTTCTTTTCTTTTCTTTTCT 1500
QY 1501 ATCTCTCTGTTCTTTTAAACAGAAAGGTGCGAGAGAAAGATGAGAGTGAACAAAGTT 1560
DB 1501 ATCTCTCTGTTCTTTTAAACAGAAAGGTGCGAGAGAAAGATGAGAGTGAACAAAGTT 1560
QY 1561 CTAAGACTACCTGCAAGTATTTCTTGGTGTAAATTAACACGAGTGGACACGGAAAGTTG 1620
DB 1561 CTAAGACTACCTGCAAGTATTTCTTGGTGTAAATTAACACGAGTGGACACGGAAAGTTG 1620
QY 1621 AGAACCAACCGGCTTAATTTGTAATGTAAGATTTGGAGA 1658
DB 1621 AGAACCAACCGGCTTAATTTGTAATGTAAGATTTGGAGA 1658
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RESULT 2
US-10-787-382-18
Sequence 18, Application US/10787382
Publication No. US20040191868A1
GENERAL INFORMATION:
APPLICANT: Yang, Shumin
APPLICANT: McCall, Catherine A.
APPLICANT: Weber, Eric R.
TITLE OF INVENTION: CANINE AND FELINE IMMUNOREGULATORY PROTEINS, NUCLEIC
FILE REFERENCE: IM-2-C1-C1
CURRENT APPLICATION NUMBER: US/10/787,382
PRIOR FILING DATE: 2004-02-24
PRIOR APPLICATION NUMBER: US/09/755,633
PRIOR FILING DATE: 2001-01-05
PRIOR APPLICATION NUMBER: 09/322,409
PRIOR FILING DATE: 1999-05-28
PRIOR APPLICATION NUMBER: 60/087,306
PRIOR FILING DATE: 1998-05-29
NUMBER OF SEQ ID NOS: 21
SOFTWARE: PatentIn Ver. 2.1
SEQ ID NO 18
LENGTH: 1658
TYPE: DNA
ORGANISM: Canis familiaris
FEATURE:
NAME/KEY: Intron

LOCATION: (171)..(373)
FEATURE:
NAME/KEY: Intron
LOCATION: (407)..(1275)
FEATURE:
NAME/KEY: Intron
LOCATION: (1405)..(1522)
US-10-787-382-18

Query Match 100.0%; Score 1658; DB 19; Length 1658;
Best Local Similarity 100.0%; Pred. No. 0;
Matches 1658; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 AGGCAACACTGAACATTTTCAGAGCTATGAGATCTTCTGAAATTTGAGTTGCTAGCTC 60
DB 1 AGGCAACACTGAACATTTTCAGAGCTATGAGATCTTCTGAAATTTGAGTTGCTAGCTC 60
QY 61 TTGGGGCTGCTATGTTCTGCTTTGCTGTAAGAAATCCCATGAAATGAGCTGTGGCAG 120
DB 61 TTGGGGCTGCTATGTTCTGCTTTGCTGTAAGAAATCCCATGAAATGAGCTGTGGCAG 120
QY 121 AGACCTTACACCTGCTCTCCACTCATGAACTTGGCTGATAGGCGATGGGGTAATTTTCT 180
DB 121 AGACCTTACACCTGCTCTCCACTCATGAACTTGGCTGATAGGCGATGGGGTAATTTTCT 180
QY 181 TTTTGATTCCTACAGCTCTTTAAATGCAAGGGTAATGSGTGGTGGCTAGTTTAA 240
DB 181 TTTTGATTCCTACAGCTCTTTAAATGCAAGGGTAATGSGTGGTGGCTAGTTTAA 240
QY 241 GATCCATTAATCAATATGAGTAAGTAAGTATTAATATATATATATGAGTAAACATGTTAC 300
DB 241 GATCCATTAATCAATATGAGTAAGTAAGTATTAATATATATATATGAGTAAACATGTTAC 300
QY 301 TCAGAAAGATTAATTAAGTATGAACCTTACATACATTAATAAATGAAATGTTGTTTC 360
DB 301 TCAGAAAGATTAATTAAGTATGAACCTTACATACATTAATAAATGAAATGTTGTTTC 360
QY 361 CTTTCTTTTTCAGAACCTGATGATCTCTACTCCGAAATTAATAATGTAAGTAAATAT 420
DB 361 CTTTCTTTTTCAGAACCTGATGATCTCTACTCCGAAATTAATAATGTAAGTAAATAT 420
QY 421 GATTGATTAATAATGATTAATCAATGATTAATTTTAAAGCTAATAAGTATCAGTTAA 480
DB 421 GATTGATTAATAATGATTAATCAATGATTAATTTTAAAGCTAATAAGTATCAGTTAA 480
QY 481 CATTGGGATGATTAATTTTATCTATTTTGTGTTTATGTCGGATGTAATTAATGTC 540
DB 481 CATTGGGATGATTAATTTTATCTATTTTGTGTTTATGTCGGATGTAATTAATGTC 540
QY 541 TTATGAATTAATGAAGTGTGTTAGGAATGGCTCAACATTAATTAAGTAAGTAAAG 600
DB 541 TTATGAATTAATGAAGTGTGTTAGGAATGGCTCAACATTAATTAAGTAAGTAAAG 600
QY 601 CAAGTGAATCAAGGCTTTTGTGATGTTGTCAGTTCTCCATCTCAAAAGAGCTCGTCA 660
DB 601 CAAGTGAATCAAGGCTTTTGTGATGTTGTCAGTTCTCCATCTCAAAAGAGCTCGTCA 660
QY 661 GGCATTTCTTCCAAAGAAATTCATATGGGTCAGAGATCTTCTAGGCTCATTCAAC 720
DB 661 GGCATTTCTTCCAAAGAAATTCATATGGGTCAGAGATCTTCTAGGCTCATTCAAC 720
QY 721 TCTGTCGTGCTTCTCACTCACTCAAGCTTTTCTGAAGATCAAGCACTTGGGGTAT 780
DB 721 TCTGTCGTGCTTCTCACTCACTCAAGCTTTTCTGAAGATCAAGCACTTGGGGTAT 780
QY 781 ATTTTGAATTAATGATGATGATGATGATGATGATGATGATGATGATGATGATGATG 840
DB 781 ATTTTGAATTAATGATGATGATGATGATGATGATGATGATGATGATGATGATGATG 840
QY 841 ACTTCAATTAATTAATTAATTAATTAATTAATTAATTAATTAATTAATTAATTAAT 900
DB 841 ACTTCAATTAATTAATTAATTAATTAATTAATTAATTAATTAATTAATTAATTAAT 900

QY 901 ATGTCATATTAATAATGTTAAATAATGATATCAATAGCTAAATAGAAATTAACA 960
DB 901 ATGTCATATTAATAATGTTAAATAATGATATCAATAGCTAAATAGAAATTAACA 960
QY 961 GCTAGAACTATACAGAGAAATTTCTGAGTGAAGTAAATCAATAGGCACTTGTATAC 1020
DB 961 GCTAGAACTATACAGAGAAATTTCTGAGTGAAGTAAATCAATAGGCACTTGTATAC 1020
QY 1021 CTGTAAGCAATTAATTTTCAATTAATCAATTAATTAATTAATTAATTAATTAAT 1080
DB 1021 CTGTAAGCAATTAATTTTCAATTAATCAATTAATTAATTAATTAATTAATTAAT 1080
QY 1081 AATTATTAATCAATCAATTAATTAATTAATTAATTAATTAATTAATTAATTAAT 1140
DB 1081 AATTATTAATCAATCAATTAATTAATTAATTAATTAATTAATTAATTAATTAAT 1140
QY 1141 TGAAGAAACACAAATTAATTAATTAATTAATTAATTAATTAATTAATTAAT 1200
DB 1141 TGAAGAAACACAAATTAATTAATTAATTAATTAATTAATTAATTAATTAAT 1200
QY 1201 AAAGCTAATCTTTTGAACCAATTTTATGCTTTTGAATTAATTAATTAATTAAT 1260
DB 1201 AAAGCTAATCTTTTGAACCAATTTTATGCTTTTGAATTAATTAATTAATTAAT 1260
QY 1261 ATCTTCTCAATTTAGCAACCAATGATTAATTAATTAATTAATTAATTAATTAAT 1320
DB 1261 ATCTTCTCAATTTAGCAACCAATGATTAATTAATTAATTAATTAATTAATTAAT 1320
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DB 1321 AAGAACCAATCTGCTCAACGAGGAGCTGTGATTAATTAATTAATTAATTAAT 1380
QY 1381 AAGAACCAATCTGCTCAACGAGGAGCTGTGATTAATTAATTAATTAATTAAT 1440
DB 1381 AAGAACCAATCTGCTCAACGAGGAGCTGTGATTAATTAATTAATTAATTAAT 1440
QY 1441 TTTGCTGATCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCT 1500
DB 1441 TTTGCTGATCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCT 1500
QY 1501 ATCTCTCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCT 1560
DB 1501 ATCTCTCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCT 1560
QY 1561 CTTAGACTACCTGCAAGATTTTCTGTTATTAATTAATTAATTAATTAATTAAT 1620
DB 1561 CTTAGACTACCTGCAAGATTTTCTGTTATTAATTAATTAATTAATTAATTAAT 1620
QY 1621 AGAACCAACCGGCTTATTTGATGGAAGATTTTGGAGA 1658
DB 1621 AGAACCAACCGGCTTATTTGATGGAAGATTTTGGAGA 1658

RESULT 3
US-09-755-633-19/c
Sequence 19, Application US/09755633
Patent No. US20020127200A1
GENERAL INFORMATION:
APPLICANT: Yang, Shumin
APPLICANT: McCall, Catherine A.
APPLICANT: Weber, Eric R.
TITLE OF INVENTION: CANINE AND FELINE IMMUNOREGULATORY PROTEINS, NUCLEIC
FILE REFERENCE: IM-2-C1-C1
CURRENT APPLICATION NUMBER: US/09/755, 633
PRIOR FILING DATE: 2001-01-05
PRIOR APPLICATION NUMBER: 09/322,409
PRIOR FILING DATE: 1999-05-28
PRIOR APPLICATION NUMBER: 60/087,306
PRIOR FILING DATE: 1998-05-29
NUMBER OF SEQ ID NOS: 21
SOFTWARE: PatentIn Ver. 2.1
SEQ ID NO 19

LENGTH: 1658
 TYPE: DNA
 ORGANISM: Canis familiaris
 US-09-755-633-19

Query Match 98.4%; Score 1631.8; DB 9; Length 1658;
 Best Local Similarity 99.8%; Pred. No. 0;
 Matches 1655; Conservative 0; Mismatches 2; Indels 2; Gaps 2;

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QY 1 AGGCAACACTGAACTTTGAGAGTATGAGATGCTTCGAATTGAGTTGCTACTC 60
DB 1658 AGGCAACACTGAACTTTGAGAGTATGAGATGCTTCGAATTGAGTTGCTACTC 1659
QY 61 TTGGGGCTGCTATGTTTCTGCTCTGAGAAAATCCCATGAATAGACTGTGCGAG 120
DB 1598 TTGGGGCTGCTATGTTTCTGCTCTGAGAAAATCCCATGAATAGACTGTGCGAG 1539
QY 121 AGACCTTGACACTGCTCTCCACTCATGCACTTGCGTATGCGGATGGGTAATTTTCT 180
DB 1538 AGACCTTGACACTGCTCTCCACTCATGCACTTGCGTATGCGGATGGGTAATTTTCT 1479
QY 181 TTTTGATTTCTCAAGTCTTTAAATGATGGTAATGGTGGTGGTGGTGGTGGTGGTGGT 240
DB 1478 TTTTGATTTCTCAAGTCTTTAAATGATGGTAATGGTGGTGGTGGTGGTGGTGGTGGT 1419
QY 241 GATCCATTATCAATATGAAATGAAATGAAATGAAATGAAATGAAATGAAATGAAATGAA 299
DB 1418 GATCCATTATCAATATGAAATGAAATGAAATGAAATGAAATGAAATGAAATGAAATGAA 1359
QY 300 CTCGAAAGATTAATTAATTAATTAATTAATTAATTAATTAATTAATTAATTAATTA 359
DB 1358 CTCGAAAGATTAATTAATTAATTAATTAATTAATTAATTAATTAATTAATTAATTA 1299
QY 360 CCTTCTCTTTTCAGAACCTGATGATCTCTCTCTGAAATTAATTAATTAATTAATTA 419
DB 1298 CCTTCTCTTTTCAGAACCTGATGATCTCTCTCTGAAATTAATTAATTAATTAATTAATTA 1239
QY 420 TGAATTTGATTAATTAATTAATTAATTAATTAATTAATTAATTAATTAATTAATTA 479
DB 1238 TGAATTTGATTAATTAATTAATTAATTAATTAATTAATTAATTAATTAATTAATTAATTA 1119
QY 480 ACATTGGGATTAATTAATTAATTAATTAATTAATTAATTAATTAATTAATTAATTA 539
DB 1178 ACATTGGGATTAATTAATTAATTAATTAATTAATTAATTAATTAATTAATTAATTA 1119
QY 540 CTTATGAATATTAAGAAATGATGATGATGATGATGATGATGATGATGATGATGATGAT 599
DB 1118 CTTATGAATATTAAGAAATGATGATGATGATGATGATGATGATGATGATGATGATGAT 1059
QY 600 GCAAGTGATCAGGCTTTTGTGATGATGATGATGATGATGATGATGATGATGATGATG 659
DB 1058 GCAAGTGATCAGGCTTTTGTGATGATGATGATGATGATGATGATGATGATGATGATGAT 999
QY 660 AGGCAATTTTTCGAAAGAAATTCATATGCTGATGATGATGATGATGATGATGATGAT 719
DB 998 AGGCAATTTTTCGAAAGAAATTCATATGCTGATGATGATGATGATGATGATGATGAT 939
QY 720 CTCTGTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCT 779
DB 938 CTCTGTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCT 879
QY 780 TATTTTGAATTAATGATGATGATGATGATGATGATGATGATGATGATGATGATGAT 839
DB 878 TATTTTGAATTAATGATGATGATGATGATGATGATGATGATGATGATGATGATGAT 819
QY 840 CACTTCCCATATTAATTAATTAATTAATTAATTAATTAATTAATTAATTAATTAATTA 899
DB 818 CACTTCCCATATTAATTAATTAATTAATTAATTAATTAATTAATTAATTAATTAATTA 759
QY 900 CATGTCATATTAATTAATTAATTAATTAATTAATTAATTAATTAATTAATTAATTA 959
DB 758 CATGTCATATTAATTAATTAATTAATTAATTAATTAATTAATTAATTAATTAATTA 699

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QY 960 AGCTAGAACTATACGAGAAATTTCTGAGGTGAGTAATACGTAAAGCACTGTATATA 1019
DB 698 AGCTAGAACTATACGAGAAATTTCTGAGGTGAGTAATACGTAAAGCACTGTATATA 639
QY 1020 CCTCTGTAAGATTTATTTTTCATTAATCATTTATATATATATATATATATATATATAT 1079
DB 638 CCTCTGTAAGATTTATTTTTCATTAATCATTTATATATATATATATATATATATATAT 579
QY 1080 TAAATTAATTAATCATCTTATTTATGTAATATATATATATATATATATATATATATAT 1139
DB 578 TAAATTAATTAATCATCTTATTTATGTAATATATATATATATATATATATATATATAT 519
QY 1140 CTGAAAGACACAGTAATAAACCTCTTGAGAGAGGAACTTGTGTAAACCCACAAA 1199
DB 518 CTGAAAGACACAGTAATAAACCTCTTGAGAGAGGAACTTGTGTAAACCCACAAA 459
QY 1200 CAAAGCTAATCTTTTGGACCAATTTTATGCTGTTTGTATGAAATTAATTTTAA 1259
DB 458 CAAAGCTAATCTTTTGGACCAATTTTATGCTGTTTGTATGAAATTAATTTTAA 400
QY 1260 AATCTCTCATTTAGACCACTGTGATTAAGAAATTTTCAAGGTATAGACAT 1319
DB 399 AATCTCTCATTTAGACCACTGTGATTAAGAAATTTTCAAGGTATAGACAT 340
QY 1320 GAAAGACAAACCTGCCACCGGAGGCTGTGATTAATCTATTCGAAACTTGTCTTAAT 1379
DB 339 GAAAGACAAACCTGCCACCGGAGGCTGTGATTAATCTATTCGAAACTTGTCTTAAT 280
QY 1380 AAAAGAACATATAGACCGCCAAAGTAATTAAGCACTTGGCAAAAATTAAGATA 1439
DB 279 AAAAGAACATATAGACCGCCAAAGTAATTAAGCACTTGGCAAAAATTAAGATA 220
QY 1440 TTTGTGACTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCT 1499
DB 219 TTTGTGACTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCT 160
QY 1500 TATCTCTCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCT 1559
DB 159 TATCTCTCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCT 100
QY 1560 TCTTAGACATCGCAAGATTTTCTTGCTGATTAATAACCGAGTGACACCGGAAAGTT 1619
DB 99 TCTTAGACATCGCAAGATTTTCTTGCTGATTAATAACCGAGTGACACCGGAAAGTT 40
QY 1620 GAGAACAAACCGGCTTATTTAGTGAAGATTTTGGAGA 1658
DB 39 GAGAACAAACCGGCTTATTTAGTGAAGATTTTGGAGA 1

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RESULT 4
 US-10-787-382-19/c
 Sequence 19, Application US/10787382
 Publication No. US20040191868A1
 GENERAL INFORMATION:
 APPLICANT: Yang, Shumin
 APPLICANT: McCall, Catherine A.
 APPLICANT: Weber, Eric R.
 TITLE OF INVENTION: CANINE AND FELINE IMMUNOREGULATORY PROTEINS, NUCLEIC
 TITLE OF INVENTION: ACID MOLECULES, AND USES THEREOF
 FILE REFERENCE: 1W-2-C1-C1
 CURRENT APPLICATION NUMBER: US/10/787,382
 CURRENT FILING DATE: 2004-02-24
 PRIOR APPLICATION NUMBER: US/09/755,633
 PRIOR FILING DATE: 2001-01-05
 PRIOR APPLICATION NUMBER: 09/322,409
 PRIOR FILING DATE: 1999-05-28
 PRIOR APPLICATION NUMBER: 60/087,306
 PRIOR FILING DATE: 1998-05-29
 NUMBER OF SEQ ID NOS: 21
 SOFTWARE: PatentIn Ver. 2.1
 SEQ ID NO 19
 LENGTH: 1658
 TYPE: DNA

ORGANISM: Canis familiaris
US-10-787-382-19

Query Match 98.4%; Score 1631.8; DB 19; Length 1658;
Best Local Similarity 99.8%; Pred. No. 0;
Matches 1655; Conservative 0; Mismatches 2; Indels 2; Gaps 2;

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QY 1 AGGCAACACTGAACTTTCAGAGCTATGAGAAATGCTTGAATTTGAGTTGCTAGCTC 60
DB 1658 AGGCAACACTGAACTTTCAGAGCTATGAGAAATGCTTGAATTTGAGTTGCTAGCTC 1599
QY 61 TTGGGGCTGCTATGTTTCTGCTTTGCTGTGAAAATCCCATGAATAGACTGTGCGAG 120
DB 1598 TTGGGGCTGCTATGTTTCTGCTTTGCTGTGAAAATCCCATGAATAGACTGTGCGAG 1539
QY 121 AGACCTTGACACCTGCTCCACCTCATGCACTTGGCTGATAGGGGATATTTTCT 180
DB 1538 AGACCTTGACACCTGCTCCACCTCATGCACTTGGCTGATAGGGGATATTTTCT 1479
QY 181 TTTTGAATTCCTACAGCTTTTAAATGCAATGGGTAATGGTGGCTGATTTTAAA 240
DB 1478 TTTTGAATTCCTACAGCTTTTAAATGCAATGGGTAATGGTGGCTGATTTTAAA 1419
QY 241 GATCCATTAATCAATTAATGAAGTAATGAGTTAATATATAT- AATGGTAACCATGTTA 299
DB 1418 GATCCATTAATCAATTAATGAAGTAATGAGTTAATATATATAT- AATGGTAACCATGTTA 1359
QY 300 CTCGAGAAATTAATTAATTAAGTTATGAACCTTCAATCACTTAAATGAATGTTGTT 359
DB 1358 CTCGAGAAATTAATTAATTAAGTTATGAACCTTCAATCACTTAAATGAATGTTGTT 1299
QY 360 CCTTCTTTTTCAGAACCTGATGATTCCTACTCCTGAAAATAAATAGTAATTAATTA 419
DB 1298 CCTTCTTTTTCAGAACCTGATGATTCCTACTCCTGAAAATAAATAGTAATTAATTA 1239
QY 420 TGATTTGATTAATGATTAATCAATGATCAATTTAATTTAAGCTAATTAAGTATCAGTTA 479
DB 1238 TGATTTGATTAATGATTAATCAATGATCAATTTAATTTAAGCTAATTAAGTATCAGTTA 1179
QY 480 ACATTTGGATTAATTAATTTATCTATTTTGTATTTATGTGGGATGAATTAATTAATG 539
DB 1178 ACATTTGGATTAATTAATTTATCTATTTTGTATTTATGTGGGATGAATTAATTAATG 1119
QY 540 CTATGATATATTAAGATGATGATAGGAATGGCTCTCAATATTAAGTAATCAATTA 599
DB 1118 CTATGATATATTAAGATGATGATAGGAATGGCTCTCAATATTAAGTAATCAATTA 1059
QY 600 GCAAGTGGATCAGGCCCCCTTTTGTATGTTGTCAATTCCTCAAGAGCTCGTCTC 659
DB 1058 GCAAGTGGATCAGGCCCCCTTTTGTATGTTGTCAATTCCTCAAGAGCTCGTCTC 999
QY 660 AGGCAATCTTTCGAAAAGAAATTCATATTTGGGTGACAGATATCTTCTAGGCTCAATTCAC 719
DB 998 AGGCAATCTTTCGAAAAGAAATTCATATTTGGGTGACAGATATCTTCTAGGCTCAATTCAC 939
QY 720 CTCGTGTTGGGCTTTCTCTCACTCAAGTTTCTGAAATTAATTAAGTAATTTGGGTTA 779
DB 938 CTCGTGTTGGGCTTTCTCTCACTCAAGTTTCTGAAATTAATTAAGTAATTTGGGTTA 879
QY 780 TATTTTGAATTAATGCTAGTACATGAATAATATACAGTGAAGTCTATATTAATTAATG 839
DB 878 TATTTTGAATTAATGCTAGTACATGAATAATATACAGTGAAGTCTATATTAATTAATG 819
QY 840 CACTTCCACATATTAATTAATTAATTAATTAATTAATTAATTAATTAATTAATTAATG 899
DB 818 CACTTCCACATATTAATTAATTAATTAATTAATTAATTAATTAATTAATTAATTAATG 759
QY 900 CATGCTATATTAATTAATTAATTAATTAATTAATTAATTAATTAATTAATTAATTAATG 959
DB 758 CATGCTATATTAATTAATTAATTAATTAATTAATTAATTAATTAATTAATTAATTAATG 699
QY 960 AGCTAGAACTATTAAGAGAAATTCGAGTGAAGTAATCAATCAAGGCTGATTAATTA 1019
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DB 698 AGTAGAATCAATTAACGAGAAATTCGAGTGAAGTAAATCAATCAAGGCTGATTAATTA 639
QY 1020 CCTGTGAAGATTAATTTTTCATTAATCAATTTCAATTAATCAATTTGTAACACTTCTAG 1079
DB 638 CCTGTGAAGATTAATTTTTCATTAATCAATTTCAATTAATCAATTTGTAACACTTCTAG 579
QY 1080 TAATTAATTAATCAATCAATTTTCTATTAATTAATTAATTAATTAATTAATTAATTAAT 1139
DB 578 TAATTAATTAATCAATCAATTTTCTATTAATTAATTAATTAATTAATTAATTAATTAAT 519
QY 1140 CTGAAAAGACACAGTAATTAATTAATTAATTAATTAATTAATTAATTAATTAATTAATTA 1199
DB 518 CCGGAAAAGACACAGTAATTAATTAATTAATTAATTAATTAATTAATTAATTAATTAATTA 459
QY 1200 CAAGTCTAATCTTTTGAACCAATTTTAAATTTGCTTTGATGAATTAATTTTAA 1259
DB 458 CAAGTCTAATCTTTTGAACCAATTTTAAATTTGCTTTGATGAATTAATTTTAA 400
QY 1260 AATCTTCTGATTTAGACCACTGTCATTAAGAAATTTTTCAGGATTAAGACATTT 1319
DB 399 AATCTTCTGATTTAGACCACTGTCATTAAGAAATTTTTCAGGATTAAGACATTT 340
QY 1320 GAAGAACCAAACTGCCCCAGGAGGCTGTGATTAATTAATTAATTAATTAATTAATTAAT 1379
DB 339 GAAGAACCAAACTGCCCCAGGAGGCTGTGATTAATTAATTAATTAATTAATTAATTAAT 280
QY 1380 AAAAGAACATTAATGAAGGCGCAAAATTAATTAATTAATTAATTAATTAATTAATTAAT 1439
DB 279 AAAAGAACATTAATGAAGGCGCAAAATTAATTAATTAATTAATTAATTAATTAATTAAT 220
QY 1440 TTGTCTGATCTGCTGCTTTTCTTTTCTTTTCTTTTCTTTTCTTTTCTTTTCTTTTCTTT 1499
DB 219 TTGTCTGATCTGCTGCTTTTCTTTTCTTTTCTTTTCTTTTCTTTTCTTTTCTTTTCTTT 160
QY 1500 TATCTCTGCTGCTTTTCTTTTCTTTTCTTTTCTTTTCTTTTCTTTTCTTTTCTTTTCT 1559
DB 159 TATCTCTGCTGCTTTTCTTTTCTTTTCTTTTCTTTTCTTTTCTTTTCTTTTCTTTTCT 100
QY 1560 TCCAGACTACCTGCAAGTATTTCTTGTGTAATTAATTAATTAATTAATTAATTAATTAAT 1619
DB 99 TCCAGACTACCTGCAAGTATTTCTTGTGTAATTAATTAATTAATTAATTAATTAATTAAT 40
QY 1620 GAGAACCAACCGGCTTATTTAGTGAAGATTTTGAGA 1658
DB 39 GAGAACCAACCGGCTTATTTAGTGAAGATTTTGAGA 1

RESULT 5
US-10-880-101A-91
; Sequence 91, Application US/10880101A
; Publication No. US20050142102A1
; GENERAL INFORMATION:
; APPLICANT: SCHAEBITZ, WOLF-RUEDIGER
; APPLICANT: SCHNEIDER, ARMIN
; APPLICANT: KRUEGER, CAROLA
; APPLICANT: SOMMER, CLEMENS
; APPLICANT: SCHWAB, STEFAN
; APPLICANT: KOLLMAR, RAINER
; APPLICANT: WEBER, DANIELA
; APPLICANT: GASSLER, NIKOLAUS
; TITLE OF INVENTION: METHODS OF TREATING NEUROLOGICAL CONDITIONS WITH HEMATOPOIETIC
; FILE REFERENCE: 254622US
; CURRENT APPLICATION NUMBER: US/10/880, 101A
; PRIOR FILING DATE: 2004-06-30
; PRIOR APPLICATION NUMBER: PCT/IB03/006446
; PRIOR FILING DATE: 2003-12-31
; PRIOR APPLICATION NUMBER: US 10/659, 295
; PRIOR FILING DATE: 2003-09-11
; PRIOR APPLICATION NUMBER: US 10/331, 755
; PRIOR FILING DATE: 2002-12-31
; NUMBER OF SEQ ID NOS: 94
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SOFTWARE: Patentin version 3.3
 SEQ ID NO 91
 LENGTH: 3241
 TYPE: DNA
 ORGANISM: Homo sapiens
 US-10-880-101A-91

Query Match 38.3%; Score 634.6; DB 22; Length 3241;
 Best Local Similarity 68.6%; Pred. No. 1.2e-120;
 Matches 1226; Conservative 0; Mismatches 374; Indels 187; Gaps 18;

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QY 1 AGGGAACACTGAACTTTGAGAGCTATGAGAAAGCTTCTGAAATTTAGTTGCTACTC 60
DB 526 AGGGAACACTGAACTTTGAGAGCTATGAGAAAGCTTCTGAAATTTAGTTGCTACTC 585
QY 61 TTGGGGCTGCTATGTTTCTGCTCTTGTAGAAATCCCATGATAGACTGGTGAG 120
DB 586 TTGGAGCTGCTATGCTATGCTATCCCAAGAAATTTCCCAAGTGCAATGGTGAG 645
QY 121 AGACCTTGACAGCTGCTGCACTGATGAACTTGGCTGATAGAGGAGATATTTCT 180
DB 646 AGACCTTGACAGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCT 705
QY 181 TTTTGTATCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCT 234
DB 706 TTTTGTATCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCT 765
QY 235 -TTTAAAGATCATCTATCATTAATGAGTATGAGTATGAGTATGAGTATGAGTATGAGT 293
DB 766 ATATAGAGATCTGTTATTAATTAATTAATTAATTAATTAATTAATTAATTAATTA 824
QY 294 ATGTTACTGAGAAATTAATTAATTAATTAATTAATTAATTAATTAATTAATTAAT 353
DB 825 ACATACACCAAAATCTGTTTAAAGTATGAGTATGAGTATGAGTATGAGTATGAGT 884
QY 354 TTGTTCTCTTCTTCTTCTTCTTCTTCTTCTTCTTCTTCTTCTTCTTCTTCTTCTT 413
DB 885 -TATTCCTTCTTCTTCTTCTTCTTCTTCTTCTTCTTCTTCTTCTTCTTCTTCTTCT 943
QY 414 AAATTAATGATTTGATTAATTAATTAATTAATTAATTAATTAATTAATTAATTAAT 469
DB 944 AAATTAATGATTTGATTAATTAATTAATTAATTAATTAATTAATTAATTAATTAAT 1003
QY 470 GTATCACTTAACATGGAGATTAATTAATTAATTAATTAATTAATTAATTAATTAAT 529
DB 1004 TCATTAATTAATTAATTAATTAATTAATTAATTAATTAATTAATTAATTAATTAAT 1063
QY 530 AAAT-TATGCTTATTAATTAATTAATTAATTAATTAATTAATTAATTAATTAATTA 588
DB 1064 GAAATGCTGATTAATTAATTAATTAATTAATTAATTAATTAATTAATTAATTAAT 1108
QY 589 GAATTCATTAAGCAATGATTAATTAATTAATTAATTAATTAATTAATTAATTAATTA 648
DB 1109 GAATTCATTAAGCAATGATTAATTAATTAATTAATTAATTAATTAATTAATTAATTA 1167
QY 649 AGCTGCTGTCAGCATTTCTTCCAAAGATTCATTAATTAATTAATTAATTAATTAAT 708
DB 1168 AGCATGCTGTCAGCATTTCTTCCAAAGATTCATTAATTAATTAATTAATTAATTAAT 1227
QY 709 GCTTCATTAACCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCT 768
DB 1228 TCTCCGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCT 1282
QY 769 ACTTGGGGTATATTTTATAGAAATTAATTAATTAATTAATTAATTAATTAATTAATTA 828
DB 1283 ACTTGGGGTATATTTTATAGAAATTAATTAATTAATTAATTAATTAATTAATTAATTA 1341
QY 829 ATATTAATGATCACTTCCATATTAATTAATTAATTAATTAATTAATTAATTAATTAAT 888
DB 1342 -CTATATTAATTAATTTCTGCAATCTTAATTAATTAATTAATTAATTAATTAATTAAT 1400
QY 889 CTGGAGTATGCTGATTAATTAATTAATTAATTAATTAATTAATTAATTAATTAATTA 948

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DB 1401 TTTGAATATGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCT 1460
QY 949 ATAAATTAACAGCTAGAACTATACAGAGAAATTTCTGAGGAGGATTAATCAATTAAGCA 1008
DB 1461 ATAAATTAACAGCTAGAACTATACAGAGAAATTTCTGAGGAGGATTAATCAATTAAGCA 1514
QY 1009 GTTGTATTAATCACTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCT 1068
DB 1515 --TGCAATTAACATTAATTAATTAATTAATTAATTAATTAATTAATTAATTAATTA 1572
QY 1069 ACATCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCT 1127
DB 1573 AAATCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCT 1632
QY 1128 GTGTTTCCCACTGAGAAAGCAAGTAAATTAATTAATTAATTAATTAATTAATTAATTA 1187
DB 1633 GTGTTTCCCACTGAGAAAGCAAGTAAATTAATTAATTAATTAATTAATTAATTAATTA 1688
QY 1188 AACCCCAAAACAAAGCTTAATTT----- 1213
DB 1689 AATACCAAAACAAAGCTTAATTTGTGACCAAAATGTTTAAATTAATTAATTTTAA 1748
QY 1214 ----- 1213
DB 1749 TTGATGAATTAATTAATTAATTAATTAATTAATTAATTAATTAATTAATTAATTA 1808
QY 1214 -----TTGACCAAAATTTTATGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCT 1256
DB 1809 ACATTCAGATGAGCAATGAGCAATTTTATTAATTAATTAATTAATTAATTAATTAAT 1867
QY 1257 TAAATCTTCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCT 1316
DB 1868 AAAATTTTCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCT 1927
QY 1317 ATGGAAGAACCAATGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCT 1376
DB 1928 ACTGAGAGTCAAACTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCT 1987
QY 1377 AATTAAGAACCAATGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAG 1436
DB 1988 AATTAAGAACCAATGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAG 2042
QY 1437 AATTTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCT 1496
DB 2043 ATATTTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCT 2088
QY 1497 CAAATATCT-----CCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCT 1550
DB 2089 TAATACCTATGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCT 2148
QY 1551 TGACAAAGTCTTACAGTACCTGCAAGTATTTCTTGGTGTATTAATTAATTAATTAATTA 1610
DB 2149 TAAACCAATTTCTGAGCTACCTGCAAGGATTTCTTGGTGTATTAATTAATTAATTAAT 2208
QY 1611 CGGAAAGTGAAGCAAAACCGGCTTAATGATGAAGATTTTGGAG 1657
DB 2209 TAGAAAGTGAAGCTAAACGTTGTTGTCAGCCAAAGATTTTGGAG 2255

```

RESULT 6
 US-09-800-629A-78
 Sequence 78, Application US/09800629A
 Patent No. US20020128216A1
 GENERAL INFORMATION:
 APPLICANT: Dean, Nicholas M.
 APPLICANT: Kairas, James G.
 APPLICANT: McKay, Robert
 APPLICANT: Manoharan, Muthiah
 TITLE OF INVENTION: ANTISENSE MODULATION OF INTERLEUKIN-5 SIGNAL
 TITLE OF INVENTION: TRANSDUCTION
 FILE REFERENCE: ISPH-0537
 CURRENT APPLICATION NUMBER: US/09/800,629A
 CURRENT FILING DATE: 2001-03-07

```

1 PRIOR APPLICATION NUMBER: PCT/US00/07318
2
3 PRIOR FILING DATE: 2000-03-17
4
5 PRIOR APPLICATION NUMBER: 09/280,799
6
7 PRIOR FILING DATE: 1999-03-26
8
9 NUMBER OF SEQ ID NOS: 210
10
11 SOFTWARE: PatentIn Ver. 2.0
12
13 SEQ ID NO 78
14
15 LENGTH: 3230
16
17 TYPE: DNA
18
19 ORGANISM: Homo sapiens
20
21 US-09-800-629A-78

```

[illegible]

Db	1343	--CTATTAATAATTTCTGCATCTTAATAATTAATTAATGACTAATGATGCTGTATGCAT	1400
Qy	889	CTGGAGATGTCATGTCATATTAAAAAGTTAAAAATGATATCATTAAGCTTAAATAGA	948
Db	1401	TGAATATG---CCGTGCATATTAAAAATGAAAAATATATAGTTT-ATTAGCTAAATAGA	1456
Qy	949	ATAAATTAACAGCTAGAACTATACGAGAAATTCAGAGTGAGGTAAATCAGTAAGCA	1008
Db	1457	ATAAATCTACACGCTAGAACTATAGAAACAT--TGATATGAGTTAAATGTAATATGC-	1513
Qy	1009	GTTGATTAATACCTCGTAGACATTATTTTTCATTAATCAATTCATTATATCATTTGTA	1068
Db	1514	----ATTACCTTCAAAACATTTTTCAGTTACATTAATTAATTAATCTTTATA	1568
Qy	1069	ACACTTCTCAGTAATTAATTAATTAACATCAATTAC-TTATGTAATTAATAGCTTAATAAG	1127
Db	1569	AAATCTCTCAGTAATCAATTAATAGCTTATCTACTTTTGAATAATTTATCTTAATATG	1628
Qy	1128	GTGGTTTCCACCTGGAAGACACAGTAATAAACTCTTGGAGAGAGAACTTGTGTA	1187
Db	1629	GTGGTTTGTGGCTAGAAA-----ACAACAAAAAATCTTTGGAGAGGAACTCATGTA	1684
Qy	1188	AAACCCACAAAACAAAGTCTTACTTT-----	1214
Db	1685	AATACCAACAAAACAAAGCTTAACCTTGTGACCAAAATGTTTAAATTAATTTTAA	1744
Qy	1215	-----	1214
Db	1745	TTGATGAATTAATAAAGTATATATATTAATGTGTACAAATGATGTTTGAAGTATGAT	1804
Qy	1215	-----TGACCAAAATTTTATAGCCCTGTGTTTGATGATTAATATTTT	1256
Db	1805	ACATTGCAAGATGACAAATGACCAAAATTTTATTAACCTTGCTGATTAATTTGA-TTTT	1865
Qy	1257	TAAATATCTTCTCTATTAGACCAACTGTGCAATTAAGAAAGTTTTCAGGTAATAGACAC	1318
Db	1864	AAAAATTTTCTCTATTAGACCAAACTGTGCACTGAAAGAAATCTTTACAGGAATAGGAC	1923
Qy	1317	ATTGAGAACCAAACTGCCACGGGAGAGCTGTGATTAATATTTCCAAACTGTCTTT	1378
Db	1924	ACTGAGAGTCAAACTGTGCAAAGGGGGATCTGTGAAAGACTATTTCAAAACTGTCTTT	1983
Qy	1377	AATTAAGAAACATATAGAGGCCAAAAAGTAAGTTAAAGACATTTGCCAAAACCTTAGT	1436
Db	1984	AATTAAGAAATACATGTGACGGCCAAAAGTAAGTTACACATTTCAATGAAAGCTAATTT	2043
Qy	1437	ATATTGCTGACCTGCGCTGTTTTTTTTTTTTTTTTTAAACAATAATGACAGTTCCCTA	1498
Db	2044	TGTCCTGCGCTG-----TGCATATTTCTAATGAAATTTGACAGTTTCTG	2085
Qy	1497	CAATATCT-----CCTCTGTTCTTTTAAACGAAAAGGTGTGCAGAGAAAAGATGAGAG	1556
Db	2086	TAAATACGATTTGTCATTTTCTTTTTCACGAAAAAGTGTGAGAAAGAAAGACGGAGAG	2145
Qy	1551	TGACAAAGTCTCTAGACTACTCTGCAAGTATTTCTTGCTGTAATTAACACCGAGTGGACAC	1610
Db	2146	TAAACCAATTCCTAGACTACTCTGCAAGAGTTCTTGCTGTAATTAACACCGAGTGGATTA	2205
Qy	1611	CGGAAGTGAAGCAAAACGGGCTAATTTGTGTGGAAGATTTTGGAG	1657
Db	2206	TAGAAGTGAAGCTAAACGTGTTGTGTGACCCAAAGATTTTGGAG	2252

RESULT 7
US-10-679-533-78
Sequence 78, Application US/10679533
Publication No. US2004012376A1.
GENERAL INFORMATION:
APPLICANT: Dean, Nicholas M.
APPLICANT: Kariss, James G
APPLICANT: McKay, Robert
APPLICANT: Manoharan, Muthiah

TITLE OF INVENTION: ANTISENSE MODULATION OF INTERLEUKIN-5 SIGNAL
FILE REFERENCE: TRANSDUCTION
CURRENT APPLICATION NUMBER: US/10/679,532
PCT/US00/07318
PRIOR FILING DATE: 2001-03-07
PRIOR APPLICATION NUMBER: US/09/800,629A
PRIOR FILING DATE: 2000-03-17
PRIOR APPLICATION NUMBER: 09/280,799
PRIOR FILING DATE: 1999-03-26
NUMBER OF SEQ ID NOS: 210
SOFTWARE: PatentIn Ver. 2.0
SEQ ID NO: 78
LENGTH: 3230
TYPE: DNA
ORGANISM: Homo sapiens
US-10-679-532-78

Query Match 36.2%; Score 600.6; DB 19; Length 3230;
Best Local Similarity 67.8%; Pred. No. 1.3e-113;
Matches 1212; Conservative 0; Mismatches 384; Indels 191; Gaps 19;

1 AGGGAACATGACATTTGAGAGTATGAGAAAGCTTGAATTTGAGTTGCTACTC 60
527 AGGGAACGAGAAAGCTTTCAGAGCATGAGATGCTTGCATTTAGTTTCTACTC 586
61 TTGGGGCTGCTATGTTCTGCTTTGCTGTAAGAAATCCCATGATAGACTGGTGCAG 120
587 TTGGAGCTGCTACGTATGATGCCATCCCGACAGAAATCCCAAGATGATGGTGAAG 646
121 AGACCTTGACATGCTCTCCACATGATGAACTGGCTGATAGGGATGGGGTAAATTTCT 180
647 AGACCTTGACATGCTCTCTCTCATGCACTGCTGATAGGCAATGAGGTAATTTCT 706
181 TTTGATTTCTCAGCTCTTAAATGATGGTAAATGGTGGTGGCTAGTT----- 234
707 TTAAGATTCCTACAGCTCTGTAAGTGAATGATGATGATGATGATGATGATGATGAT 766
235 -TTTAAAGATTCATATCAATATGAGTAAATGAGTAAATATATATATATATGAGTACC 293
767 ATATAGAGATCTGTTATTAATTAATTAATTAATTAATTAATTAATTAATTAATTAAT 825
294 ATGTTACTCAGAAAGATTAATTAATTAATTAATTAATTAATTAATTAATTAATTAAT 353
826 ACATCAGCAGCAACATCTGTTAAAGTATGATGATGATGATGATGATGATGATGATGAT 885
354 TTGTTCT 413
886 -TATTTCT 944
414 AAATTAATGATTTGATTAATTAATTAATTAATTAATTAATTAATTAATTAATTAATTAAT 469
945 AAATTAATGATTTGATTAATTAATTAATTAATTAATTAATTAATTAATTAATTAATTAAT 1004
470 GTATCAGTTAAATGAGTAAATTAATTAATTAATTAATTAATTAATTAATTAATTAATTAAT 529
1005 TCATTAATGATTTGATTAATTAATTAATTAATTAATTAATTAATTAATTAATTAATTAAT 1064
530 AAAT-TATGCTCTTATGATTAATTAATTAATTAATTAATTAATTAATTAATTAATTAATTAAT 588
1065 GAATGCTCTGATTAATTAATTAATTAATTAATTAATTAATTAATTAATTAATTAATTAAT 1109
589 GAATCATTAAAGAGTAAATGAGTAAATTAATTAATTAATTAATTAATTAATTAATTAATTAAT 648
1110 GAATCATTAAAGAGTAAATGAGTAAATTAATTAATTAATTAATTAATTAATTAATTAATTAAT 1169
649 AGCTCTGTCAGGATTTCTTCCAAAGAAATTCATATGAGTAAATTAATTAATTAATTAATTAAT 708
1170 AGCATGCTGTCAGG-ATTTCTTCCAAAGAAATTCATATGAGTAAATTAATTAATTAATTAATTAAT 1228
709 GCTCATTACCTCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCT 768

1229 TCTCCGTGAGTTCTGAC-----TCTTCTCACTTAACGCTGTTCTGAAGTATTAGCA 1283
769 ACTGGGGTAAATATTTTAAATTAATTAATTAATTAATTAATTAATTAATTAATTAATTAATTAAT 828
1284 ACTCAGAAATTAATTTTAAATTAATTAATTAATTAATTAATTAATTAATTAATTAATTAATTAAT 1342
829 AATTAATTAATTAATTTTAAATTAATTAATTAATTAATTAATTAATTAATTAATTAATTAATTAAT 888
1343 --CTATTAATTAATTTCTGATTAATTAATTAATTAATTAATTAATTAATTAATTAATTAATTAAT 1400
889 CTGAGATTAATTAATTAATTAATTAATTAATTAATTAATTAATTAATTAATTAATTAATTAATTAAT 948
1401 TGAATATG---CTGATTAATTAATTAATTAATTAATTAATTAATTAATTAATTAATTAATTAATTAAT 1456
949 AATAAATTAATTAATTAATTAATTAATTAATTAATTAATTAATTAATTAATTAATTAATTAATTAAT 1008
1457 AATAAATTAATTAATTAATTAATTAATTAATTAATTAATTAATTAATTAATTAATTAATTAATTAAT 1513
1009 GTTGAATTAATTAATTAATTAATTAATTAATTAATTAATTAATTAATTAATTAATTAATTAATTAAT 1068
1514 ----ATTACATTTCCAAACATTTTTCAGTTACATTAATTAATTAATTAATTAATTAATTAATTAATTAAT 1568
1069 ACATCTGAGTAAATTAATTAATTAATTAATTAATTAATTAATTAATTAATTAATTAATTAATTAATTAAT 1127
1569 AATCTCTGATTAATTAATTAATTAATTAATTAATTAATTAATTAATTAATTAATTAATTAATTAATTAAT 1628
1128 GTGTTTCCACCTGGAAGAAAGACAAAGTAAATTAATTAATTAATTAATTAATTAATTAATTAATTAAT 1187
1629 GTGTTTGTGCTTAAGAA---ACAAACAAATTAATTAATTAATTAATTAATTAATTAATTAATTAATTAAT 1684
1188 AACCCCAAAACAAAGTAAATTTT----- 1214
1685 AATACCAAAACAAAGTAAATTTT----- 1214
1215 ----- 1214
1745 TTGATGAATTAATTAATTAATTAATTAATTAATTAATTAATTAATTAATTAATTAATTAATTAATTAAT 1804
1215 -----TGACCAATTTTAAATTAATTAATTAATTAATTAATTAATTAATTAATTAATTAATTTT 1256
1805 ACATTCAGAAATGAGACATGAGCAATTTTAAATTAATTAATTAATTAATTAATTAATTAATTAATTAAT 1863
1257 TAAATTTCTCTCATTTAGACCACTGATTAATTAATTAATTAATTAATTAATTAATTAATTAATTAATTAAT 1316
1864 AAAATTTCTCTCATTTAGACCACTGATTAATTAATTAATTAATTAATTAATTAATTAATTAATTAATTAAT 1923
1317 AATGAAGAACCAATGAGCCAGGAGGAGCTGATTAATTAATTAATTAATTAATTAATTAATTAATTAATTAATTAAT 1376
1924 ACTGAGAGTCAACCTGTCAGAGGAGTATGAGAAAGCTATTAATTAATTAATTAATTAATTAATTAATTAATTAAT 1983
1377 AATTAAGAACCAATGAGCCAGGAGGAGCTGATTAATTAATTAATTAATTAATTAATTAATTAATTAATTAATTAAT 1436
1984 AATTAAGAACCAATGAGCCAGGAGGAGCTGATTAATTAATTAATTAATTAATTAATTAATTAATTAATTAATTAAT 2043
1437 AATTTGCTGACTGCT 1496
2044 TGTCTGCTGCTG-----TGCTATTTCTATGAAATTAATTAATTAATTAATTAATTAATTAATTAATTAAT 2085
1497 CAATATCT-----CCTGCTGCTTAAACAGAAAGGCTGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAG 1550
2086 TAATACCTATTAATTAATTAATTAATTAATTAATTAATTAATTAATTAATTAATTAATTAATTAATTAATTAAT 2145
1551 TGACAAAGTCTAGACTACCTGCAAGTATTTCTGCTGATTAATTAATTAATTAATTAATTAATTAATTAATTAATTAAT 1610
2146 TAAACCAATTTCTAGACTACCTGCAAGTATTTCTGCTGATTAATTAATTAATTAATTAATTAATTAATTAATTAAT 2205
1611 CGGAAAGTGAAGCAAAACCGCTTAATTAATTAATTAATTAATTAATTAATTAATTAATTAATTAATTAAT 1657
2206 TAGAAAGTGAAGCAAAACCGCTTAATTAATTAATTAATTAATTAATTAATTAATTAATTAATTAATTAAT 2252

RESULT 8
US-10-880-101A-89

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Sequence 89 Application US/10880101A
Publication No. US20050142102A1
GENERAL INFORMATION:
APPLICANT: SCHAEBITZ, WOLF-RUEDIGER
APPLICANT: SCHNEIDER, ARMIN
APPLICANT: KRUEGER, CAROLA
APPLICANT: SOMMER, CLEMENS
APPLICANT: SCHWAB, STEFAN
APPLICANT: KOLLMAR, RAINER
APPLICANT: MAURER, MARTIN
APPLICANT: WEBER, DANIELA
APPLICANT: GASSLER, NIKOLAUS
TITLE OF INVENTION: METHODS OF TREATING NEUROLOGICAL CONDITIONS WITH HEMATOPOIETIC
FILE OF INVENTION: GROWTH FACTORS
FILE REFERENCE: 254622US
CURRENT APPLICATION NUMBER: US/10/880,101A
CURRENT FILING DATE: 2004-06-30
PRIORITY APPLICATION NUMBER: PCT/IB03/006446
PRIORITY FILING DATE: 2003-12-31
PRIORITY APPLICATION NUMBER: US 10/659,295
PRIORITY FILING DATE: 2003-09-11
PRIORITY APPLICATION NUMBER: US 10/331,755
PRIORITY FILING DATE: 2002-12-31
NUMBER OF SEQ ID NOS: 94
SOFTWARE: PatentIn version 3.3
SEQ ID NO 89
LENGTH: 3230
TYPE: DNA
ORGANISM: Homo sapiens
US-10-880-101A-89

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QY 1551 TGACAAAGTCTAGACTACTGCAAGTATTTCTTGTTGTAATAAACACCGAGTGAAC 1610
DB 2146 TAAACCAATTCCTAGACTACTGCAAGATTTCTTGTTGTAATAAACACCGAGTGAATA 2205
QY 1611 CGGAAAGTTAGAACCAACCGGCTTATTTGATGGAAGATTTTGAG 1657
DB 2206 TAGAAGTTGAGACTTAACTGTTGTTGTCAGCCAAAGATTTTGAG 2252

RESULT 9
US-09-755-633-21

; Sequence 21, Application US/09755633
; Patent No. US20020127200A1
; GENERAL INFORMATION:
; APPLICANT: Yang, Shumin
; APPLICANT: McCall, Catherine A.
; APPLICANT: Weber, Eric R.
; TITLE OF INVENTION: CANINE AND FELINE IMMUNOREGULATORY PROTEINS, NUCLEIC
; FILE REFERENCE: IM-2-C1-C1
; CURRENT APPLICATION NUMBER: US/09/755,633
; PRIOR FILING DATE: 2001-01-05
; PRIOR APPLICATION NUMBER: 09/322,409
; PRIOR FILING DATE: 1999-05-28
; PRIOR APPLICATION NUMBER: 60/087,306
; NUMBER OF SEQ ID NOS: 21
; SOFTWARE: PatentIn Ver. 2.1
; SEQ ID NO 21
; LENGTH: 671
; TYPE: DNA
; ORGANISM: Canis familiaris
US-09-755-633-21

Query Match 24.5%; Score 406; DB 9; Length 671;
Best Local Similarity 100.0%; Pred. No. 9.8e-74;
Matches 406; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 AGGCAAAACACTGAACATTTGAGAGCTATGAGAAATGCTTGAATTTGAGTTTGTAGCTC 60
DB 1 AGGCAAAACACTGAACATTTGAGAGCTATGAGAAATGCTTGAATTTGAGTTTGTAGCTC 60
QY 61 TTGGGGCTGCTATGTTTCTGCTTTGCTGTAGAAAATCCCATGAAATAGACTGGTGCGAG 120
DB 61 TTGGGGCTGCTATGTTTCTGCTTTGCTGTAGAAAATCCCATGAAATAGACTGGTGCGAG 120
QY 121 AGACCTTGACACGCTCTCCATCATGAACTTGGCTGATAGCGGATGGGGTAAATTTTCT 180
DB 121 AGACCTTGACACGCTCTCCATCATGAACTTGGCTGATAGCGGATGGGGTAAATTTTCT 180
QY 181 TTTTGATTTCTCAGAGCTTTTAAATGATGGGTAAATGGTGGTGGTGGTGGTGGTGGTGGT 240
DB 181 TTTTGATTTCTCAGAGCTTTTAAATGATGGGTAAATGGTGGTGGTGGTGGTGGTGGTGGT 240
QY 241 GATCATTATCAATTAATGAAGTAATGAGTGTAAATATATATATATATATATATATATATAT 300
DB 241 GATCATTATCAATTAATGAAGTAATGAGTGTAAATATATATATATATATATATATATATAT 300
QY 301 TCAGAAAGATTAATTAATGAAGTGTAAATGAACTTAATTAATTAATTAATTAATTAATTAAT 360
DB 301 TCAGAAAGATTAATTAATGAAGTGTAAATGAACTTAATTAATTAATTAATTAATTAATTAAT 360
QY 361 CTTTCTTTTTCAGAACTGATGATCTTCTACTCTCGAAAAATTAATAAT 406
DB 361 CTTTCTTTTTCAGAACTGATGATCTTCTACTCTCGAAAAATTAATAAT 406

RESULT 10
US-10-787-382-21
; Sequence 21, Application US/10787382
; Publication No. US20040191868A1
; GENERAL INFORMATION:

; APPLICANT: Yang, Shumin
; APPLICANT: McCall, Catherine A.
; APPLICANT: Weber, Eric R.
; TITLE OF INVENTION: CANINE AND FELINE IMMUNOREGULATORY PROTEINS, NUCLEIC
; FILE REFERENCE: IM-2-C1-C1
; CURRENT APPLICATION NUMBER: US/10/787,382
; PRIOR FILING DATE: 2004-02-24
; PRIOR APPLICATION NUMBER: US/09/755,633
; PRIOR FILING DATE: 2001-01-05
; PRIOR APPLICATION NUMBER: 09/322,409
; PRIOR FILING DATE: 1999-05-28
; PRIOR APPLICATION NUMBER: 60/087,306
; NUMBER OF SEQ ID NOS: 21
; SOFTWARE: PatentIn Ver. 2.1
; SEQ ID NO 21
; LENGTH: 671
; TYPE: DNA
; ORGANISM: Canis familiaris
US-10-787-382-21

Query Match 24.5%; Score 406; DB 19; Length 671;
Best Local Similarity 100.0%; Pred. No. 9.8e-74;
Matches 406; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 AGGCAAAACACTGAACATTTGAGAGCTATGAGAAATGCTTGAATTTGAGTTTGTAGCTC 60
DB 1 AGGCAAAACACTGAACATTTGAGAGCTATGAGAAATGCTTGAATTTGAGTTTGTAGCTC 60
QY 61 TTGGGGCTGCTATGTTTCTGCTTTGCTGTAGAAAATCCCATGAAATAGACTGGTGCGAG 120
DB 61 TTGGGGCTGCTATGTTTCTGCTTTGCTGTAGAAAATCCCATGAAATAGACTGGTGCGAG 120
QY 121 AGACCTTGACACGCTCTCCATCATGAACTTGGCTGATAGCGGATGGGGTAAATTTTCT 180
DB 121 AGACCTTGACACGCTCTCCATCATGAACTTGGCTGATAGCGGATGGGGTAAATTTTCT 180
QY 181 TTTTGATTTCTCAGAGCTTTTAAATGATGGGTAAATGGTGGTGGTGGTGGTGGTGGTGGT 240
DB 181 TTTTGATTTCTCAGAGCTTTTAAATGATGGGTAAATGGTGGTGGTGGTGGTGGTGGTGGT 240
QY 241 GATCATTATCAATTAATGAAGTAATGAGTGTAAATATATATATATATATATATATATATAT 300
DB 241 GATCATTATCAATTAATGAAGTAATGAGTGTAAATATATATATATATATATATATATATAT 300
QY 301 TCAGAAAGATTAATTAATGAAGTGTAAATGAACTTAATTAATTAATTAATTAATTAATTAAT 360
DB 301 TCAGAAAGATTAATTAATGAAGTGTAAATGAACTTAATTAATTAATTAATTAATTAATTAAT 360
QY 361 CTTTCTTTTTCAGAACTGATGATCTTCTACTCTCGAAAAATTAATAAT 406
DB 361 CTTTCTTTTTCAGAACTGATGATCTTCTACTCTCGAAAAATTAATAAT 406

RESULT 11
US-09-755-633-4
; Sequence 4, Application US/09755633
; Patent No. US20020127200A1
; GENERAL INFORMATION:
; APPLICANT: Yang, Shumin
; APPLICANT: McCall, Catherine A.
; APPLICANT: Weber, Eric R.
; TITLE OF INVENTION: CANINE AND FELINE IMMUNOREGULATORY PROTEINS, NUCLEIC
; FILE REFERENCE: IM-2-C1-C1
; CURRENT APPLICATION NUMBER: US/09/755,633
; PRIOR FILING DATE: 2001-01-05
; PRIOR APPLICATION NUMBER: 09/322,409
; PRIOR FILING DATE: 1999-05-28
; PRIOR APPLICATION NUMBER: 60/087,306
; NUMBER OF SEQ ID NOS: 21

SOFTWARE: PatentIn Ver. 2.1
SEQ ID NO 4
LENGTH: 610
TYPE: DNA
ORGANISM: Canis familiaris
FEATURE:
NAME/KEY: CDS
LOCATION: (29)..(430)
US-09-755-633-4

Query Match 10.4%; Score 171.8; DB 9; Length 610;
Best Local Similarity 93.7%; Pred. No. 2.1e-25;
Matches 179; Conservative 0; Mismatches 12; Indels 0; Gaps 0;

QY 1 AGGCAACACTGAACTTTCAGAGCTATGAGAAATGCTTGAATTTGATTGCTAGCTC 60
DB 3 AGGCAACACTGAACTTTCAGAGCTATGAGAAATGCTTGAATTTGATTGCTAGCTC 62
QY 61 TTGGGGCTGCTATGTTTCTGCTTTGCTGTAGAAAATCCCATGAAATGACTGGTGCGAG 120
DB 63 TTGGGGCTGCTATGTTTCTGCTTTGCTGTAGAAAATCCCATGAAATGACTGGTGCGAG 122
QY 121 AGACCTTGACACTGCTCTCCACTCATGCAACTTGGCTGATAGGCGATGGGTAATTTTCT 180
DB 123 AGACCTTGACACTGCTCTCCACTCATGCAACTTGGCTGATAGGCGATGGGTAATTTTCT 182
QY 181 TTTGATTCTT 191
DB 183 TTCCTACTCTT 193

RESULT 12

US-09-755-633-6/c

Sequence 6, Application US/09755633
Patent No. US20020127200A1
GENERAL INFORMATION:
APPLICANT: Yang, Shumin
APPLICANT: McCall, Catherine A.
APPLICANT: Weber, Eric R.
TITLE OF INVENTION: CANINE AND FELINE IMMUNOREGULATORY PROTEINS, NUCLEIC
FILE REFERENCE: IM-2-C1-C1
CURRENT APPLICATION NUMBER: US/09/755,633
PRIOR APPLICATION NUMBER: 2001-01-05
PRIOR FILING DATE: 1999-05-28
PRIOR APPLICATION NUMBER: 60/087,306
PRIOR FILING DATE: 1998-05-29
NUMBER OF SEQ ID NOS: 21
SOFTWARE: PatentIn Ver. 2.1
SEQ ID NO 6
LENGTH: 610
TYPE: DNA
ORGANISM: Canis familiaris
US-09-755-633-6

Query Match 10.4%; Score 171.8; DB 9; Length 610;
Best Local Similarity 93.7%; Pred. No. 2.1e-25;
Matches 179; Conservative 0; Mismatches 12; Indels 0; Gaps 0;

QY 1 AGGCAACACTGAACTTTCAGAGCTATGAGAAATGCTTGAATTTGATTGCTAGCTC 60
DB 608 AGGCAACACTGAACTTTCAGAGCTATGAGAAATGCTTGAATTTGATTGCTAGCTC 549
QY 61 TTGGGGCTGCTATGTTTCTGCTTTGCTGTAGAAAATCCCATGAAATGACTGGTGCGAG 120
DB 548 TTGGGGCTGCTATGTTTCTGCTTTGCTGTAGAAAATCCCATGAAATGACTGGTGCGAG 489
QY 121 AGACCTTGACACTGCTCTCCACTCATGCAACTTGGCTGATAGGCGATGGGTAATTTTCT 180
DB 488 AGACCTTGACACTGCTCTCCACTCATGCAACTTGGCTGATAGGCGATGGGTAATTTTCT 429
QY 181 TTTGATTCTT 191

DB 428 TTCCTACTCTT 418

RESULT 13

US-10-218-654-80

Sequence 80, Application US/10218654
Publication No. US20030099609A1
GENERAL INFORMATION:
APPLICANT: Sim, Gek-Kee
APPLICANT: Yang, Shumin
APPLICANT: Dreitz, Matthew J.
APPLICANT: Wonderling, Ramani S.
TITLE OF INVENTION: CANINE AND FELINE IMMUNOREGULATORY PROTEINS, NUCLEIC
FILE REFERENCE: IM-2-C1
CURRENT APPLICATION NUMBER: US/10/218,654
PRIOR APPLICATION NUMBER: 2002-08-13
PRIOR FILING DATE: 1999-05-28
PRIOR APPLICATION NUMBER: 60/087,306
PRIOR FILING DATE: 1998-05-29
NUMBER OF SEQ ID NOS: 154
SOFTWARE: PatentIn Ver. 2.0
SEQ ID NO 80
LENGTH: 610
TYPE: DNA
ORGANISM: Canis familiaris
FEATURE:
NAME/KEY: CDS
LOCATION: (29)..(430)
US-10-218-654-80

Query Match 10.4%; Score 171.8; DB 14; Length 610;
Best Local Similarity 93.7%; Pred. No. 2.1e-25;
Matches 179; Conservative 0; Mismatches 12; Indels 0; Gaps 0;

QY 1 AGGCAACACTGAACTTTCAGAGCTATGAGAAATGCTTGAATTTGATTGCTAGCTC 60
DB 3 AGGCAACACTGAACTTTCAGAGCTATGAGAAATGCTTGAATTTGATTGCTAGCTC 62
QY 61 TTGGGGCTGCTATGTTTCTGCTTTGCTGTAGAAAATCCCATGAAATGACTGGTGCGAG 120
DB 63 TTGGGGCTGCTATGTTTCTGCTTTGCTGTAGAAAATCCCATGAAATGACTGGTGCGAG 122
QY 121 AGACCTTGACACTGCTCTCCACTCATGCAACTTGGCTGATAGGCGATGGGTAATTTTCT 180
DB 123 AGACCTTGACACTGCTCTCCACTCATGCAACTTGGCTGATAGGCGATGGGTAATTTTCT 182
QY 181 TTTGATTCTT 191
DB 183 TTCCTACTCTT 193

RESULT 14

US-10-218-654-82/c

Sequence 82, Application US/10218654
Publication No. US20030099609A1
GENERAL INFORMATION:
APPLICANT: Sim, Gek-Kee
APPLICANT: Yang, Shumin
APPLICANT: Dreitz, Matthew J.
APPLICANT: Wonderling, Ramani S.
TITLE OF INVENTION: CANINE AND FELINE IMMUNOREGULATORY PROTEINS, NUCLEIC
FILE REFERENCE: IM-2-C1
CURRENT APPLICATION NUMBER: US/10/218,654
PRIOR APPLICATION NUMBER: 2002-08-13
PRIOR FILING DATE: 1999-05-28
PRIOR APPLICATION NUMBER: 60/087,306
PRIOR FILING DATE: 1998-05-29
NUMBER OF SEQ ID NOS: 154

SOFTWARE: PatentIn Ver. 2.0
SEQ ID NO 82
LENGTH: 610
TYPE: DNA
ORGANISM: Canis familiaris
US-10-218-654-82

Query Match 10.4%; Score 171.8; DB 14; Length 610;
Best Local Similarity 93.7%; Pred. No. 2.1e-25;
Matches 179; Conservative 0; Mismatches 12; Indels 0; Gaps 0;

QY 1 AGGCAACACGACATTTTGAGCTATGAGATGCTTGAATTTGAGTTTGTACTC 60
DB 608 AGGCAACACGACATTTTGAGCTATGAGATGCTTGAATTTGAGTTTGTACTC 549
QY 61 TTGGGGCTGCTATGTTTCTGCTTTGCTGTAGAAATCCCATGATAGACTGGGCGAG 120
DB 548 TTGGGGCTGCTATGTTTCTGCTTTGCTGTAGAAATCCCATGATAGACTGGGCGAG 489
QY 121 AGACCTTGACACTGCTCTCCACTCATGGAATTTGGGATGGGATGAGTATTTTCT 180
DB 488 AGACCTTGACACTGCTCTCCACTCATGGAATTTGGGATGGGATGAGTATTTTCT 429
QY 181 TTTGATTCTT 191
DB 428 TTCTACTCTT 418

RESULT 15

US-10-262-439-80
Sequence 80, Application US/10262439
Publication No. US20030143196A1
GENERAL INFORMATION:
APPLICANT: Sim, Gek-Kee
APPLICANT: Yang, Shumin
APPLICANT: Dreitz, Matthew J.
TITLE OF INVENTION: CANINE AND FELINE IMMUNOREGULATORY PROTEINS, NUCLEIC
FILE REFERENCE: IM-2-C2
CURRENT APPLICATION NUMBER: US/10/262,439
CURRENT FILING DATE: 2002-09-30
PRIOR APPLICATION NUMBER: US/09/451,527
PRIOR FILING DATE: 1999-12-01
PRIOR APPLICATION NUMBER: 09/322,409
PRIOR FILING DATE: 1999-05-28
PRIOR APPLICATION NUMBER: 60/087,306
PRIOR FILING DATE: 1998-05-29
NUMBER OF SEQ ID NOS: 174
SOFTWARE: PatentIn Ver. 2.0
SEQ ID NO 80
LENGTH: 610
TYPE: DNA
ORGANISM: Canis familiaris
FEATURE:
NAME/KEY: CDS
LOCATION: (29)..(430)
US-10-262-439-80

Query Match 10.4%; Score 171.8; DB 15; Length 610;
Best Local Similarity 93.7%; Pred. No. 2.1e-25;
Matches 179; Conservative 0; Mismatches 12; Indels 0; Gaps 0;

QY 1 AGGCAACACGACATTTTGAGCTATGAGATGCTTGAATTTGAGTTTGTACTC 60
DB 3 AGGCAACACGACATTTTGAGCTATGAGATGCTTGAATTTGAGTTTGTACTC 62
QY 61 TTGGGGCTGCTATGTTTCTGCTTTGCTGTAGAAATCCCATGATAGACTGGGCGAG 120
DB 63 TTGGGGCTGCTATGTTTCTGCTTTGCTGTAGAAATCCCATGATAGACTGGGCGAG 122
QY 121 AGACCTTGACACTGCTCTCCACTCATGGAATTTGGGATGGGATGAGTATTTTCT 180

DB 123 AGACCTTGACACTGCTCTCCACTCATGGAATTTGGGATGGGATGAGTATTTTCT 182
QY 181 TTTGATTCTT 191
DB 183 TTCTACTCTT 193

Search completed: August 7, 2005, 19:25:00
Job time : 1378.34 secs

GenCore version 5.1.6
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OM nucleic - nucleic search, using sw model

Run on: August 7, 2005, 18:43:18 ; Search time 7055.44 Seconds
(without alignments)
8944.955 Million cell updates/sec

Title: US-10-787-382-18
Perfect score: 1658
Sequence: 1 aggcacactgacacattc.....gtagtgaagatttggaga 1658

Scoring table: IDENTITY NUC
Gapop 10.0 , Gapext 1.0

Searched: 34239544 seqs, 19032134700 residues
Total number of hits satisfying chosen parameters: 68479088

Minimum DB seq length: 0
Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries

Database : EST:
1: gb_est1.*
2: gb_est2.*
3: gb_hc.*
4: gb_est3.*
5: gb_est4.*
6: gb_est5.*
7: gb_est6.*
8: gb_gest1.*
9: gb_gest2.*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	Query Match length	ID	Description
1	398	24.0	622 9	CE331159 tigr-gss-
2	205.4	12.4	495 7	CR554944 DKF2p469N
3	117.4	7.1	817 3	BC069137 Homo sapi
4	114.8	6.9	463 6	CD559535 AGENCOURT
5	114.4	6.9	456 3	BC066281 Homo sapi
6	114.4	6.9	458 3	BC066279 Homo sapi
7	114.4	6.9	458 3	BC066280 Homo sapi
8	114.4	6.9	467 6	CD559688 AGENCOURT
9	114.4	6.9	467 6	CD559690 AGENCOURT
10	114.4	6.9	470 6	CD559687 AGENCOURT
11	114.4	6.9	473 6	CD559689 AGENCOURT
12	114.4	6.9	478 6	CD559534 AGENCOURT
13	114.4	6.9	492 6	CD559533 AGENCOURT
14	113.2	6.8	489 6	CD559536 AGENCOURT
15	111.2	6.7	456 6	CD559686 AGENCOURT
16	110.8	6.7	456 6	CD559532 AGENCOURT
17	97.8	5.9	405 9	AY412020 Homo sapi
18	96.2	5.8	405 9	AY412021 Pan trogl
19	95.8	5.8	477 6	CD559608 AGENCOURT
20	95.2	5.7	503 5	BQ598873 MT-P-24-a
21	86.8	5.2	399 9	AY412022 Mus muscu
22	83	5.0	1101 9	CNS0039G
23	81.4	4.9	781 9	CR235404 Reverse s
24	72.8	4.4	987 9	CNS014PQ
				AL104456 Drosophi1

C 25	68.6	4.1	737	9	CR026247 Reverse s
C 26	68	4.1	1101	9	CNS0039G
C 27	68	4.1	1190	9	CNS020N7
C 28	66.6	4.0	1101	9	CNS01712
C 29	66.4	4.0	1539	9	AG340947
C 30	65.8	4.0	1101	9	CNS00EVL
C 31	65.2	3.9	928	9	CNS00EVL
C 32	65	3.9	1101	9	CNS00EVL
C 33	64.6	3.9	508	8	AQ248202
C 34	64	3.9	1101	9	CNS0042W
C 35	63.4	3.8	1190	9	CNS020N7
C 36	63	3.8	1201	9	CNS0167M
C 37	62.4	3.8	1225	9	CNS0161D
C 38	62.2	3.8	1780	9	AG320553
C 39	61.8	3.7	1896	9	CG751083
C 40	61	3.7	835	9	CNS02M02
C 41	61	3.7	942	8	BH166228
C 42	60.8	3.7	625	8	BH509089
C 43	60.8	3.7	1101	9	CNS00LT2
C 44	60.4	3.6	597	1	AU037847
C 45	60.4	3.6	1101	9	CNS003BD
					AL064091 Drosophi1

ALIGNMENTS

RESULT 1	CE331159	LOCUS	CE331159	DEFINITION	tigr-gss-dog-1700033398568 Dog library Canis familiaris genomic, genomic survey sequence.	DNA	linear	GSS	26-SEP-2003
ACCESSION	CE331159	VERSION	CE331159	KEYWORDS	GSS.				
SOURCE	CE331159.1	ORGANISM	Canis familiaris (dog)		Canis familiaris				
REFERENCE	1 (bases 1 to 622)	AUTHORS	Kirkness, E.F., Batna, V., Halpern, A.L., Levy, S., Remington, K., Ruesch, D.B., Delcher, A.L., Pop, M., Wang, W., Fraser, C.M. and Venter, J.C.						
TITLE	The dog genome: survey sequencing and comparative analysis	JOURNLT	Science						
MEDLINS	301 (5641), 1898-1903 (2003)	PUBMED	22875432						
COMMENT	14512627		Contact: Kirkness EF						
	The Institute for Genomic Research		Department of Eukaryotic Genomics, TIGR, 9712 Medical Center Drive,						
	Rockville, MD 20850, USA		Tel: 301-838-0200						
	Fax: 301-838-0208		Email: ekirkness@tigr.org						
	Class: shotgun.								
FEATURES	source		location/Qualifiers						
	1..622		/organism="Canis familiaris"						
	/mol_type="genomic DNA"		/strain="Standard Poodle"						
	/db_xref="taxon:9615"		/clone_lib="Dog Library"						
	/note="Site 1: Batxi; Libraries were prepared from peripheral blood"								
ORIGIN									
Query Match	24.0%; Score 398; DB 9; Length 622;								
Best local similarity	96.4%; Pred. No. 6e-71;								
Matches	407; Conservative 0; Mismatches 15; Indels 0; Gaps 0;								
Qy	1237	TTTTGATGATTAATTTTAAATCTTCTCATTTAGCAACCACTGTGATTAAAGAA	1296						
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QY 1297 GTTTTTCAGGTTATGACACATTGAAACCAACCTGCCACGGGGAGGCTGTGGATPAA 1356
Db 63 GTTTTTCAGGTTATGACACATTGAAACCAACCTGCCACGGGGAGGCTGTGGATPAA 122
QY 1357 CTATTCACAAACCTGCTTTTATAAAGAACACATAGAGCGCCAAAAGTAAAGTAAGA 1416
Db 123 CTATTCACAAACCTGCTTTTATAAAGAACACATAGAGCGCCAAAAGTAAAGTAAGA 182
QY 1417 CATTTGGCAAAACCTTAAGTATATTTGTCTGACTCTGCTGTTTTTTTTTTTTTTT 1476
Db 183 CATTTGGCAAAACCTTAAGTATATTTGTCTGACTCTGCTGTTTTTTTTTTTTTTT 242
QY 1477 CAAGAATTGACAGTTTCTTACAAATATCTCTGCTTTTAAACAGAAAAGTGCAGG 1536
Db 243 CAAGAATTGACAGTTTCTTACAAATATCTCTGCTTTTAAACAGAAAAGTGCAGG 302
QY 1537 AGAAGATGAGAGTGACAAAGTCTTACACTGACCTGCAAGTATTTCTGGTGTATPAA 1596
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QY 1597 CACGAGTGACACCGGAAAGTTAGAACAAACCGGCTTATTTAGTGAAGATTTTGA 1656
Db 363 CACGAGTGACACCGGAAAGTTAGAACAAACCGGCTTATTTAGTGAAGATTTTGA 422
QY 1657 GA 1658
Db 423 GA 424

RESULT 2
LOCUS CR554944 495 bp mRNA linear EST 12-JUL-2004
DEFINITION DKFZp469N2214_x1 469 (synonym: pkid1) Pongo pygmaeus cDNA clone
ACCESSION CR554944
VERSION CR554944.1 GI:50244873
KEYWORDS EST.
SOURCE Pongo pygmaeus (orangutan)
ORGANISM Pongo pygmaeus
Mammalia; Eutheria; Chordata; Craniata; Vertebrata; Euleleostomi;
Mammalia; Eutheria; Primates; Catarrhini; Homnidae; Pongo.
1 (bases 1 to 495)
REFERENCE Bloembergen, H., Boecher, M., Brandt, P., Mewes, H.W., Weil, B., Anid, C.,
Oeinger, A., Fodor, G., Han, M. and Wiemann, S.
Pongo pygmaeus mRNA (Bloembergen, H., Boecher, M., Brandt, P., et al.)
JOURNAL Unpublished (2004)
COMMENT Contact: MIPS
MIPS Ingolstaedter Landstr. 1, D-85764 Neuberg, Germany
This is the 5' sequence of the clone insert from S. Wiemann,
Molecular Genome Analysis, German Cancer Research Center (DKFZ);
Email: s.wiemann@dkfz-heidelberg.de; sequenced by GBF (National
Research Centre for Biotechnology Ltd., Braunschweig/Germany)
within the cDNA sequencing consortium of the German Genome Project.
This clone (DKFZp469N2214) is available at the RZPD in Berlin.
Please contact the RZPD: Ressourcenzentrum, Heubnerweg 6, 14059
Berlin-Charlottenburg, GERMANY; Email: clone@rzpd.de Further
information about the clone and the sequencing project is available
at http://mips.gsf.de/projects/cdna/
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1..495
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Query Match 12.4%; Score 205.4; DB 7; Length 495;

Best Local Similarity 72.1%; Pred. No. 1.5e-31;
Matches 312; Conservative 0; Mismatches 111; Indels 10; Gaps 3;
QY 1 AGGCAACACCTGAACATTTCAGAGCTATGAGATGCTT-CTGAATTGAGTTGCTGCT 59
Db 435 AGGCAACACCTGAACATTTCAGAGCTATGAGATGCTT-CTGAATTGAGTTGCTGCT 376
QY 60 CTGGGAGCTGCTATGTTTCTGCTTGTGCTGTGAGAAATCCATGATAGTACGTGTGCA 119
Db 375 CTGGGAGCTGCTATGATATGATATGATGATCCCAAGAAATTCACAGATGATGTGATA 316
QY 120 GAGACCTTGACACTGCTCTGACATCATGCACTTGGCTGATAGCGATGGGATTTTC 179
Db 315 GAGACCTTGACACTGCTCTGACATCATGCACTTGGCTGATAGCGATGGGATTTTC 256
QY 180 TTTTGAATCTTCAAGCTTTTAAAGTGAAGGATTTGGTGGTGGG-----CTA 231
Db 255 TTTTGAATCTTCAAGCTTTTAAAGTGAAGGATTTGGTGGTGGG-----CTA 196
QY 232 GTTTTAAAGATCATTATGATATGATGATGATGATGATGATGATGATGATGATGATG 291
Db 195 TATATGAGACCTGTTAT 137
QY 292 CCATGTTACTCAGAGATTTATTTAAAGTTTGAACCTTACATTCATTTAAATGAA 351
Db 136 CTACATCACCACCAACATTCATTTAAAGTTTGAACCTTACATTCATTTAAATGAA 77
QY 352 TGTGTTTCTCTTCTTTTGAAGACCTGATGATGATGATGATGATGATGATGATGATG 411
Db 76 TGTGTTTCTCTTCTCTTCCAGAACTGAGGATTTCTGTTCTGTTACATTTAAATGATG 17
QY 412 TTAATTTATGATT 424
Db 16 TTAATTTATGATT 4

RESULT 3
LOCUS BC069137 817 bp mRNA linear HTC 26-APR-2004
DEFINITION Homo sapiens cDNA clone IMAGE:7216996, containing frame-shift
errors
ACCESSION BC069137
VERSION BC069137.1 GI:46575644
KEYWORDS HTC.
SOURCE Homo sapiens (human)
ORGANISM Homo sapiens
Mammalia; Eutheria; Chordata; Craniata; Vertebrata; Euleleostomi;
Mammalia; Eutheria; Primates; Catarrhini; Homnidae; Homo.
1 (bases 1 to 817)
REFERENCE Strausberg, R.L., Feingold, E.A., Grouse, L.H., Derge, J.G.,
Klausner, R.D., Collins, F.S., Wagner, L., Shenmen, C.M., Schuler, G.D.,
Altschul, S.F., Zeeberg, B., Buetow, K.H., Schaefer, C.F., Bhat, N.K.,
Hopkins, R.F., Jordan, H., Moore, T., Max, S.I., Wang, J., Hsieh, F.,
Datchenko, L., Marusina, K., Farmer, A.A., Rubin, G.M., Hong, L.,
Sapich, M., Soares, M.B., Donald, M.P., Casavant, T.L.,
Schaefer, T.E., Brownstein, M.J., Ueda, T.B., Toshiyuki, S.,
Carninci, P., Prange, C., Raha, S.S., Loquellano, N.A., Peters, G.J.,
Abrams, R.D., Mullany, S.J., Bosak, S.A., McEwan, P.J.,
McKernan, K.J., Malek, J.A., Gunaratne, P.H., Richards, S.,
Worley, K.C., Hale, S., Garcia, A.M., Gay, L.J., Hult, S.W.,
Villalón, D.K., Muzny, D.M., Sodergren, E.J., Lu, X., Gibbe, R.A.,
Fahey, J., Helton, E., Kettner, M., Madan, A., Young, A.C., Shevchenko, Y.,
Bouffard, G.G., Blakesley, R.W., Touchman, J.W., Green, B.D.,
Dickson, M.C., Rodriguez, A.C., Grimwood, J., Schmitt, J., Myers, R.M.,
Butterfield, Y.S., Krzywinski, M.I., Skalski, U., Smallos, D.E.,
Schmeck, A., Schein, J.E., Jones, S.J. and Marra, M.A.
Generation and initial analysis of more than 15,000 full-length
human and mouse cDNA sequences
Proc. Natl. Acad. Sci. U.S.A. 99 (26), 16699-16903 (2002)
JOURNAL PUBLISHED 12477932
REFERENCE Strausberg, R.

TITLE Direct Submission
JOURNAL Submitted (16-APR-2004) National Institutes of Health, Mammalian
Gene Collection (MGC), Cancer Genomics Office, National Cancer
Institute, 31 Center Drive, Room 11A03, Bethesda, MD 20892-2590,
USA

REMARK NIH-MGC Project URL: <http://mgc.nci.nih.gov>
Contact: MGC help desk
Email: cgabbs-remail.nih.gov
Tissue Procurement: Anup Madan, University of Iowa
CDNA Library Preparation: Anup Madan, University of Iowa
CDNA Library Arrayed by: The I.M.A.G.E. Consortium (LNL)
DNA Sequencing by: Neurogenomics Research Lab,
200 B EMBL, University of Iowa, Iowa City, IA-52242
anup-madan@iowa.edu
Jesica Fahey, Tim Nelson, Jae Gwon Yoon and Anup Madan

FEATURES
source
Clone distribution: MGC clone distribution information can be found
through the I.M.A.G.E. Consortium/LNL at: <http://image.llnl.gov>
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ORIGIN

Query Match 7.1%; Score 117.4; DB 3; Length 817;
Best Local Similarity 75.9%; Pred. No. 1.5e-13;
Matches 145; Conservative 0; Mismatches 46; Indels 0; Gaps 0;

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61 TTGGGGCTGCTATGTTTCTGCTTGTGAGAAATCCCATGATGAGCTGTGAGCAG 120
79 TTGGAGTGCTTACGTATGATGATCCACAGAAATCCACAGATGATGAGGAAAG 138
121 AGACCTGACACTGCTCTCCACTCATGCACTTGCTGATAGGCGATGGGTAATTTCT 180
139 AGACCTGGCACTGCTTCTACTCATGCACTGCTGATAGCCCAATGAGACTGAGAGA 198
181 TTTGATTGCT 191
199 TTCCTGTTCT 209

RESULT 4
CD559535 463 bp mRNA linear EST 26-NOV-2003
LOCUS
DEFINITION AGSCCOURT_14496865 NIH_MGC_195 Homo sapiens cDNA clone
IMAGE:6971769 5', mRNA sequence.

ACCESSION CD559535
VERSION CD559535
KEYWORDS EST.
SOURCE Homo sapiens (human)
ORGANISM Homo sapiens
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Primates; Catarrhini; Homiidae; Homo.

REFERENCE 1 (bases 1 to 463)
NIH-MGC <http://mgc.nci.nih.gov/>.
National Institutes of Health, Mammalian Gene Collection (MGC)
Unpublished (1999)
On Jun 10, 2003 this sequence version replaced gi:31585603.
Contact: Daniela S. Gerhart, Ph.D.
Office of Cancer Genomics
National Cancer Institute / NIH

Bldg. 31 Rm10A07 Bethesda, MD 20892

Email: cgabbs-remail.nih.gov
Tissue Procurement: Narayan Bhat
CDNA Library Preparation: Bhat Laboratory
CDNA Library Arrayed by: The I.M.A.G.E. Consortium (LNL)
DNA Sequencing by: Agencourt Bioscience Corporation
Clone distribution: MGC clone distribution information can be
found through the I.M.A.G.E. Consortium/LNL at:
<http://image.llnl.gov>
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High quality sequence stop: 463.
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/clone_lib="NIH_MGC_195"
/note="Vector: pDNR-Dual; Site 1: loxp-sali; Site 2:
loxp-hindIII; Clones from this library have been
PCR-amplified using gene-specific primers to contain the
complete open reading frame (based on known gene sequences
available from NCBI's RefSeq). Template for PCR is cDNA
derived from either pooled total RNA from 10 different tissues
(from BD Biosciences/Clontech and Washington University).
PCR products are directionally cloned into the loxp sites
of the pDNR-Dual vector. Library constructed by Dr.
Narayan Bhat, Earl Bere III and Hongling Liao (Gene
Expression Laboratory, Research Technology Program, SAIC
Frederick, NCI-Frederick, Frederick, MD 21702). For
information on which gene each clone represents, please
visit our anonymous ftp site at
ftp://image.llnl.gov/image/rearrayed_plates/IRBK.presv.dat
a Note: this is a NIH_MGC Library."

FEATURES

source

ORIGIN

Query Match 6.9%; Score 114.8; DB 6; Length 463;
Best Local Similarity 75.3%; Pred. No. 5e-13;
Matches 143; Conservative 0; Mismatches 47; Indels 0; Gaps 0;

2 GCGAAGACATGAAATTTGAGAGTATGAGAAATGCTTGAATTTGATTGCTAGCTC 61
3 GACAAAGCAGAAAGCTTTCAGAGTATGAGAAATGCTTGAATTTGATTGCTAGCTC 62
62 TTGGGGCTGCTATGTTTCTGCTTGTGAGAAATCCCATGATGAGCTGTGAGCAG 121
63 TGGAGTGCTTACGTATGATGATCCACAGAAATCCACAGATGATGAGGAAAG 122
122 GACCTGACACTGCTCTCCACTCATGCACTTGCTGATAGGCGATGGGTAATTTCTT 181
123 GACCTGGCACTGCTTCTACTCATGCACTGCTGATAGCCCAATGAGACTGAGAGAT 182
182 TTTGATTGCT 191
183 TTCCTGTTCT 192

RESULT 5

BC066281 456 bp mRNA linear HTC 12-FEB-2004
LOCUS
DEFINITION Homo sapiens cDNA clone IMAGE:6971770, containing frame-shift
errors.

ACCESSION BC066281
VERSION BC066281
KEYWORDS HTC.
SOURCE Homo sapiens (human)
ORGANISM Homo sapiens
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Primates; Catarrhini; Homiidae; Homo.

REFERENCE 1 (bases 1 to 456)

AUTHORS
 Strausberg, R.L., Feingold, E.A., Grouse, L.H., Derge, J.G., Klausner, R.D., Collins, F.S., Wagner, L., Sherman, C.M., Schuler, G.D., Altschul, S.F., Zeeberg, B., Buetow, K.H., Schaefer, C.F., Bhat, N.K., Hopkins, R.F., Jordan, H., Moore, T., Max, S.I., Wang, J., Hsieh, F., Diatchenko, L., Marusina, K., Farmer, A.A., Rubin, G.M., Hong, L., Stapleton, M., Soares, M.B., Bonaldo, M.F., Casavant, T.L., Scheetz, T.E., Brownstein, M.J., Uedlin, T.B., Toshiyuki, S., Carninci, P., Prange, C., Rhee, S., Loquellano, N.A., Peters, G.J., Abramson, R.D., Mullahy, S.J., Bosak, S.A., McEwan, P.J., McKernan, K.J., Malek, J.A., Gunaratne, P.H., Richards, S., Worley, K.C., Hale, S., Garcia, A.M., Gay, L.J., Hulyk, S.W., Villalón, D.K., Muzny, D.M., Sodergren, E.J., Lu, X., Gibbs, R.A., Fehy, J., Helton, E., Kettelman, M., Madan, A., Rodriguez, S., Sanchez, A., Whiting, M., Madan, A., Young, A.C., Shevchenko, Y., Bouffard, G.G., Blakesley, R.W., Touchman, J.W., Green, E.D., Dickson, M.C., Rodriguez, A.C., Grimwood, J., Schultz, J., Myers, R.M., Butterfield, Y.S., Krzywinski, M.I., Skalski, U., Smalins, D.E., Scherch, A., Schein, J.E., Jones, S.J. and Marra, M.A.
 Generation and initial analysis of more than 15,000 full-length human and mouse cDNA sequences
PROC. Natl. Acad. Sci. U.S.A. 99 (26), 16899-16903 (2002)

TITLE
 NIH-MGC Project URL: <http://mgc.ncl.nih.gov>
 Contact: MGC help desk
 Email: cgabs-remail.nih.gov
 Tissue Procurement: Narayan Bhat
 cDNA Library Preparation: Bhat Laboratory
 DNA Sequencing by: Sequencing Group at the Stanford Human Genome Center, Stanford University School of Medicine, Stanford, CA 94305
 Web site: <http://www-shgc.stanford.edu>
 Contact: (Dickson, Mark) mcdepaxil.stanford.edu
 Dickson, M., Schmutz, J., Grimwood, J., Rodriguez, A., and Myers, R. M.
 Cloning distribution: MGC clone distribution information can be found through the I.M.A.G.E. Consortium/LLNL at: <http://image.llnl.gov>
 Series: IRAX Plate: 172 Row: a Column: 17
 This clone was selected for full length sequencing because it passed the following selection criteria: matched mRNA gi: 28559032
 This clone has the following problem: frame shifted.

FEATURES
source
 1. 456
 /organism="Homo sapiens"
 /mol_type="mRNA"
 /db_xref="taxon:9606"
 /clone="IMAGE:6971770"
 /tissue_type="PCR rescued clones"
 /clone_id="NIH_MGC_195"
 /lab_host="DH10B"
 /note="Vector: pDNR-Dual"

ORIGIN
 Query Match 6.94; Score 114.4; DB 3; Length 456;
 Best Local Similarity 75.5%; Pred. No. 6e-13;
 Matches 142; Conservative 0; Mismatches 46; Indels 0; Gaps 0;

4 CAACACTGAACTTTCAGAGCTATGAGAGCTTTCGAAATTTGCTACTCTTG 63
 1 CAACGCGAAGCGTTTCAGAGCTATGAGAGCTTTCGAAATTTGCTACTCTTG 60
 64 GGGCTGCTATGTTTCTTCTTCTTCTTCTTCTTCTTCTTCTTCTTCTTCTT 123
 61 GAGCTGCTATGTTTCTTCTTCTTCTTCTTCTTCTTCTTCTTCTTCTTCTT 120
 124 CTTGACACTGCTCTCCACATCATGAACTTGGCTGATAGCGATGGGTAATTTTCTTTT 183

Db
 121 CTTGACACTGCTCTCCACATCATGAACTTGGCTGATAGCGATGGGTAATTTTCTTTT 180

Qy
 184 TGAATCCT 191

Db
 181 CTTTCTCT 188

RESULT 6
 BC066279
 LOCUS
 DEFINITION
 Homo sapiens cDNA clone IMAGE:6971768, containing frame-shift errors.
 ACCESSION
 BC066279
 VERSION
 BC066279.1 GI:42490901
 KEYWORDS
 HTC
 SOURCE
 Homo sapiens (human)
 ORGANISM
 Homo sapiens
 Eukaryota; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Primates; Catarrhini; Homnidae; Homo.

REFERENCE
 1 (bases 1 to 458)
 Strausberg, R.L., Feingold, E.A., Grouse, L.H., Derge, J.G., Klausner, R.D., Collins, F.S., Wagner, L., Sherman, C.M., Schuler, G.D., Altschul, S.F., Zeeberg, B., Buetow, K.H., Schaefer, C.F., Bhat, N.K., Hopkins, R.F., Jordan, H., Moore, T., Max, S.I., Wang, J., Hsieh, F., Diatchenko, L., Marusina, K., Farmer, A.A., Rubin, G.M., Hong, L., Stapleton, M., Soares, M.B., Bonaldo, M.F., Casavant, T.L., Scheetz, T.E., Brownstein, M.J., Uedlin, T.B., Toshiyuki, S., Carninci, P., Prange, C., Rhee, S., Loquellano, N.A., Peters, G.J., Abramson, R.D., Mullahy, S.J., Bosak, S.A., McEwan, P.J., McKernan, K.J., Malek, J.A., Gunaratne, P.H., Richards, S., Worley, K.C., Hale, S., Garcia, A.M., Gay, L.J., Hulyk, S.W., Villalón, D.K., Muzny, D.M., Sodergren, E.J., Lu, X., Gibbs, R.A., Fehy, J., Helton, E., Kettelman, M., Madan, A., Rodriguez, S., Sanchez, A., Whiting, M., Madan, A., Young, A.C., Shevchenko, Y., Bouffard, G.G., Blakesley, R.W., Touchman, J.W., Green, E.D., Dickson, M.C., Rodriguez, A.C., Grimwood, J., Schultz, J., Myers, R.M., Butterfield, Y.S., Krzywinski, M.I., Skalski, U., Smalins, D.E., Scherch, A., Schein, J.E., Jones, S.J. and Marra, M.A.
 Generation and initial analysis of more than 15,000 full-length human and mouse cDNA sequences
PROC. Natl. Acad. Sci. U.S.A. 99 (26), 16899-16903 (2002)

TITLE
 NIH-MGC Project URL: <http://mgc.ncl.nih.gov>
 Contact: MGC help desk
 Email: cgabs-remail.nih.gov
 Tissue Procurement: Narayan Bhat
 cDNA Library Preparation: Bhat Laboratory
 DNA Sequencing by: Sequencing Group at the Stanford Human Genome Center, Stanford University School of Medicine, Stanford, CA 94305
 Web site: <http://www-shgc.stanford.edu>
 Contact: (Dickson, Mark) mcdepaxil.stanford.edu
 Dickson, M., Schmutz, J., Grimwood, J., Rodriguez, A., and Myers, R. M.
 Cloning distribution: MGC clone distribution information can be found through the I.M.A.G.E. Consortium/LLNL at: <http://image.llnl.gov>
 Series: IRAX Plate: 172 Row: a Column: 15
 This clone was selected for full length sequencing because it passed the following selection criteria: matched mRNA gi: 28559032
 This clone has the following problem: frame shifted.

FEATURES
source
 1. 458
 /organism="Homo sapiens"
 /mol_type="mRNA"

/db_xref="taxon:9606"
/clone="IMAGE:6971769"
/issue_type="PCR rescued clones"
/clone_id="NIH_MGC_195"
/lab_host="DH10B"
/note="Vector: pDNR-Dual"

ORIGIN

Query Match 6.9%; Score 114.4; DB 3; Length 458;
Best Local Similarity 75.5%; Pred. No. 6e-13;
Matches 142; Conservative 0; Mismatches 46; Indels 0; Gaps 0;

QY 4 CAACACTGAACTTATGAGCTATGAGATGCTTGAATTTGATTTGCTACTCTTG 63
DB 1 CAACGAGAACTTTGAGCCATGAGATGCTTGAATTTGATTTGCTACTCTTG 60
QY 64 GGGCTGCTATGTTTCTGCTTCTGCTAGAAAATCCCATGATGAGCTGTGCGAGAGA 123
DB 61 GAGCTGCTACGTATGATGATCCATCCCAAGAAATCCCAAGATGATGATGAGAGA 120
QY 124 CTTGACACTGCTCTCCATGATGAGAACTTGGCTGATAGGCGATGGGTAATTTCTTTT 183
DB 121 CTTGGACAGCTGCTTCTATCATGAACTCTGCTGATAGCAATGAGACTCTGAGAGATTC 180
QY 184 TGATTCCT 191
DB 181 CTGTTCT 188

RESULT 7
BC066280
LOCUS
DEFINITION Homo sapiens cDNA clone IMAGE:6971769, containing frame-shift
errors.

ACCESSION BC066280
VERSION BC066280.1 GI:42490838
KEYWORDS HTC.

SOURCE Homo sapiens (human)
ORGANISM

REFERENCE
AUTHORS
1 (bases 1 to 458)
Klausner, R.D., Collins, F.S., Wagner, L., Shennan, C.M., Schuler, G.D.,
Krausberg, R.L., Feingold, E.A., Grouse, L.H., Derge, J.G.,
Altschul, S.F., Zeeberg, B., Buetow, K.H., Schaefer, C.F., Bhat, N.K.,
Hopkins, R.F., Jordan, H., Moore, T., Max, S.I., Wang, J., Heien, F.,
Diatchenko, L., Marusina, K., Farmer, A.A., Rubin, G.M., Hong, L.,
Stapleton, M., Soares, M.B., Bonaldo, M.F., Casavant, T.L.,
Schaefer, T.E., Brownstein, M.J., Udell, T.B., Toshiyuki, S.,
Abramson, P., Prange, C., Raha, S.S., Loquellano, N.A., Peters, G.J.,
McKernan, R.D., Malek, J.A., Gunaratne, P.H., Richards, S.,
Worley, K.C., Hale, S., Garcia, A.M., Gay, L.J., Hui, S.W.,
Villalón, D.K., Muzny, D.M., Sodergren, E.J., Lu, X., Gibbs, R.A.,
Fahey, J., Helton, E., Kettelman, M., Madan, A., Rodriguez, S.,
Sanchez, A., Whiting, M., Madan, A., Young, A.C., Shevchenko, Y.,
Bouffard, G.G., Blakesley, R.W., Touchman, J.W., Green, E.D.,
Dickson, M.C., Rodriguez, A.C., Grimwood, J., Schmutz, J., Myers, R.M.,
Butterfield, Y.S., Krzywinski, M.I., Skalska, U., Smolins, D.E.,
Schneider, A., Schein, J.E., Jones, S.J., and Merritt, M.A.

TITLE
JOURNAL
PUBMED
2 (bases 1 to 458)
AUTHORS
JOURNAL
TITLE
DIRECT SUBMISSION
SUBMITTED (03-FEB-2004) National Institutes of Health, Mammalian
Gene Collection (MGC), Cancer Genomics Office, National Cancer
Institute, 31 Center Drive, Room 11A03, Bethesda, MD 20892-2590,
USA
NIH-MGC Project URL: <http://mgc.nci.nih.gov>
Contact: MGC help desk

REMARK
COMMENT

Email: cgabs-rc@mail.nih.gov

Tissue Procurement: Narayan Bhat
CNA Library Preparation: Bhat Laboratory
CNA Library Arrayed by: The I.M.A.G.E. Consortium (ILNL)
DNA Sequencing by: Sequencing Group at the Stanford Human Genome
Center, Stanford University School of Medicine, Stanford, CA 94305
Web site: <http://www.shgc.stanford.edu>
Contact: (Dickson, Mark) mcdpaxil@stanford.edu
Dickson, M., Schmutz, J., Grimwood, J., Rodriguez, A., and Myers,
R. M.

Clone distribution: MGC clone distribution information can be found
through the I.M.A.G.E. Consortium/ILNL at: <http://image.llnl.gov>
Series: IRAC Plate: 172 Row: a Column: 16
This clone was selected for full length sequencing because it
passed the following selection criteria: matched mRNA gi: 28559032
this clone has the following problem: frame shifted.

FEATURES

SOURCE

/organism="Homo sapiens"
/mol_type="mRNA"
/db_xref="taxon:9606"
/clone="IMAGE:6971769"
/issue_type="PCR rescued clones"
/clone_id="NIH_MGC_195"
/lab_host="DH10B"
/note="Vector: pDNR-Dual"

ORIGIN

Query Match 6.9%; Score 114.4; DB 3; Length 458;
Best Local Similarity 75.5%; Pred. No. 6e-13;
Matches 142; Conservative 0; Mismatches 46; Indels 0; Gaps 0;

QY 4 CAACACTGAACTTATGAGCTATGAGATGCTTGAATTTGATTTGCTACTCTTG 63
DB 1 CAACGAGAACTTTGAGCCATGAGATGCTTGAATTTGATTTGCTACTCTTG 60
QY 64 GGGCTGCTATGTTTCTGCTTCTGCTAGAAAATCCCATGATGAGCTGTGCGAGAGA 123
DB 61 GAGCTGCTACGTATGATGATCCATCCCAAGAAATCCCAAGATGATGATGAGAGA 120
QY 124 CTTGACACTGCTCTCCATGATGAGAACTTGGCTGATAGGCGATGGGTAATTTCTTTT 183
DB 121 CTTGGACAGCTGCTTCTATCATGAACTCTGCTGATAGCAATGAGACTCTGAGAGATTC 180
QY 184 TGATTCCT 191
DB 181 CTGTTCT 188

RESULT 8
CD559688/c
LOCUS
DEFINITION CD559688 467 bp mRNA linear EST 19-NOV-2003
AGENCOURT 14496964 NIH MGC 195 Homo sapiens cDNA clone
IMAGE:6971770 5', mRNA sequence.

ACCESSION CD559688
VERSION CD559688.2 GI:38453486
KEYWORDS EST.

SOURCE Homo sapiens (human)
ORGANISM

REFERENCE
AUTHORS
JOURNAL
TITLE
DIRECT SUBMISSION
SUBMITTED (1999) National Institutes of Health, Mammalian Gene Collection (MGC)
On Jun 10, 2003 this sequence version replaced gi:31585756.
Contact: Daniela S. Gerhard, Ph.D.
Office of Cancer Genomics / NIH
National Cancer Institute / NIH
Bldg. 31 Rm10A07 Bethesda, MD 20892
Email: cgabs-rc@mail.nih.gov
Tissue Procurement: Narayan Bhat

REMARK
COMMENT

CDNA Library Preparation: Bhat Laboratory
 CDNA Library Arrayed by: The I.M.A.G.E. Consortium (LNL)
 DNA Sequencing by: Agencourt Bioscience Corporation
 Clone distribution: MGC clone distribution information can be
 found through the I.M.A.G.E. Consortium/LNL at:
<http://image.llnl.gov>
 Plate: IRBK1 row: 9 column: 09
 High quality sequence start: 11
 High quality sequence stop: 467.
 Location/Qualifiers

FEATURES

source

1..467
 /organism="Homo sapiens"
 /mol_type="mRNA"
 /db_xref="taxon:9606"
 /clone="IMAGE:6971770"
 /tissue_type="mixed"
 /lab_host="DH5A (TI phage-resistant)"
 /clone_lib="NIH MGC 195"
 /note="Vector: pDNR-Dual; Site 1: loxP-SalI; Site 2:
 loxP-HindIII; Clones from this library have been
 PCR-amplified using gene-specific primers to contain the
 complete open reading frame (based on known gene sequences
 available from NCBI's RefSeq). Template for PCR is cDNA
 derived from either pooled cytoplasmic polyA RNA from 30
 cells lines or pooled total RNA from 10 different tissues
 (from BD Biosciences/Clontech and Washington University).
 PCR products are directionally cloned into the loxP sites
 of the pDNR-Dual vector. Library constructed by Dr.
 Narayan Bhat, Earl Bere III and Hongling Liao (Gene
 Expression Laboratory, Research Technology Program, SAIC
 Frederick, NCI-Frederick, Frederick, MD 21702). For
 information on which gene each clone represents, please
 visit our anonymous ftp site at
ftp://image.llnl.gov/image/rearranged_plates/IRBK_prev.dat
 a Note: this is a NIH_MGC Library."

ORIGIN

Query Match 6.9%; Score 114.4; DB 6; Length 467;
 Best Local Similarity 75.5%; Pred. No. 6.1e-13;
 Matches 142; Conservative 0; Mismatches 46; Indels 0; Gaps 0;

4 CAAACACTGAACATTTCAGAGCTATGAGAAATGCTTGAATTGAGTTGCTAGCTTTG 63
 |||||
 466 CAAACGAGAGAGCTTTGAGAGCCATGAGAGCTTTGCAATTTGATGTTGCTAGCTTTG 407
 |||||
 64 GGGCTGCTATGTTTCTGCTTCTCTGTAGAAATCCCATGAATAGACTGGTGACAGAGA 123
 |||||
 406 GAGCTGCTTAGCTATAGCCATCCCAAGAAATTTCCCAAGTGCATTGGTAAAGAGA 347
 |||||
 124 CTTGACACTGCTCTCCACTCATGGAATTGGCTGATAGGCGATGGGTAATTTCTTTT 183
 |||||
 346 CTTGGACACTGCTTTTACTCATGGAATCTGTGATAGGCAATGAGACTCTGAGATTC 287
 |||||
 184 TGATTCT 191
 |||||
 286 CTGTCTCT 279

RESULT 9
 CD559690/c 467 bp mRNA linear EST 19-NOV-2003
 LOCUS
 DEFINITION AGENCOURT 14496838 NIH MGC 195 Homo sapiens cDNA clone
 IMAGE:6971768 5', mRNA sequence.
 CD559690
 VERSION CD559690.2 GI:38453490
 KEYWORDS EST.
 SOURCE Homo sapiens (human)
 ORGANISM Homo sapiens
 Eukaryota; Metazoa; Chordata; Cranialata; Vertebrata; Euteleostomi;
 Mammalia; Eutheria; Primates; Catarrhini; Homnidae; Homo.
 REFERENCE 1 (bases 1 to 467)
 NIH-MGC <http://mgc.nci.nih.gov/>.
 AUTHORS National Institutes of Health, Mammalian Gene Collection (MGC)
 TITLE

JOURNAL

COMMENT

Unpublished (1999)
 On Jun 10, 2003 this sequence version replaced gi:31585758.
 Contact: Daniela S. Gerhard, Ph.D.
 Office of Cancer Genomics
 National Cancer Institute / NIH
 Bldg. 31 Rm10A07 Bethesda, MD 20892
 Email: cgabs-remail.nih.gov
 Tissue Procurement: Narayan Bhat
 CDNA Library Preparation: Bhat Laboratory
 CDNA Library Arrayed by: The I.M.A.G.E. Consortium (LNL)
 DNA Sequencing by: Agencourt Bioscience Corporation
 Clone distribution: MGC clone distribution information can be
 found through the I.M.A.G.E. Consortium/LNL at:
<http://image.llnl.gov>
 Plate: IRBK1 row: 9 column: 07
 High quality sequence stop: 467.
 Location/Qualifiers

FEATURES

source

1..467
 /organism="Homo sapiens"
 /mol_type="mRNA"
 /db_xref="taxon:9606"
 /clone="IMAGE:6971768"
 /tissue_type="mixed"
 /lab_host="DH5A (TI phage-resistant)"
 /clone_lib="NIH MGC 195"
 /note="Vector: pDNR-Dual; Site 1: loxP-SalI; Site 2:
 loxP-HindIII; Clones from this library have been
 PCR-amplified using gene-specific primers to contain the
 complete open reading frame (based on known gene sequences
 available from NCBI's RefSeq). Template for PCR is cDNA
 derived from either pooled cytoplasmic polyA RNA from 30
 cells lines or pooled total RNA from 10 different tissues
 (from BD Biosciences/Clontech and Washington University).
 PCR products are directionally cloned into the loxP sites
 of the pDNR-Dual vector. Library constructed by Dr.
 Narayan Bhat, Earl Bere III and Hongling Liao (Gene
 Expression Laboratory, Research Technology Program, SAIC
 Frederick, NCI-Frederick, Frederick, MD 21702). For
 information on which gene each clone represents, please
 visit our anonymous ftp site at
ftp://image.llnl.gov/image/rearranged_plates/IRBK_prev.dat
 a Note: this is a NIH_MGC Library."

ORIGIN

Query Match 6.9%; Score 114.4; DB 6; Length 467;
 Best Local Similarity 75.5%; Pred. No. 6.1e-13;
 Matches 142; Conservative 0; Mismatches 46; Indels 0; Gaps 0;

4 CAAACACTGAACATTTCAGAGCTATGAGAAATGCTTGAATTGAGTTGCTAGCTTTG 63
 |||||
 466 CAAACGAGAGAGCTTTGAGAGCCATGAGAGCTTTGCAATTTGATGTTGCTAGCTTTG 407
 |||||
 64 GGGCTGCTATGTTTCTGCTTCTCTGTAGAAATCCCATGAATAGACTGGTGACAGAGA 123
 |||||
 406 GAGCTGCTTAGCTATAGCCATCCCAAGAAATTTCCCAAGTGCATTGGTAAAGAGA 347
 |||||
 124 CTTGACACTGCTCTCCACTCATGGAATTGGCTGATAGGCGATGGGTAATTTCTTTT 183
 |||||
 346 CTTGGACACTGCTTTTACTCATGGAATCTGTGATAGGCAATGAGACTCTGAGATTC 287
 |||||
 184 TGATTCT 191
 |||||
 286 CTGTCTCT 279

RESULT 10
 CD559687/c 470 bp mRNA linear EST 19-NOV-2003
 LOCUS
 DEFINITION AGENCOURT 14497029 NIH MGC 195 Homo sapiens cDNA clone
 IMAGE:6971771 5', mRNA sequence.
 CD559687
 VERSION CD559687.2 GI:38453484
 KEYWORDS EST.

SOURCE Homo sapiens (human)
ORGANISM Homo sapiens
REFERENCE 1 (bases 1 to 470)
AUTHORS NIH-MGC <http://mgc.nci.nih.gov/>.
TITLE National Institutes of Health, Mammalian Gene Collection (MGC)
JOURNAL Unpublished (1999)
COMMENT On Jun 10, 2003 this sequence version replaced gi:31585755.
Contact: Daniela S. Gerhard, Ph.D.
Office of Cancer Genomics
National Cancer Institute / NIH
Bldg. 31 Rm10A07 Bethesda, MD 20892
Email: cgabds-remail.nih.gov
Tissue Procurement: Narayan Bhat
CDNA Library Preparation: Bhat Laboratory
CDNA Library Arrayed by: The I.M.A.G.E. Consortium (LNLN)
DNA Sequencing by: Agencourt Bioscience Corporation
Clone distribution: MGC clone distribution information can be
found through the I.M.A.G.E. Consortium/LNLN at:
<http://image.llnl.gov>
Plate: IRBK1 row: 9 column: 10
High quality sequence start: 14
High quality sequence stop: 470.

FEATURES
SOURCE

1..470
Location/Qualifiers
/organism="Homo sapiens"
/mol_type="mRNA"
/db_xref="taxon:9606"
/clone="IMAGE:6971771"
/tissue_type="mixed"
/lab_host="DH5A (T1 phage-resistant)"
/clone_lib="NIH MGC_195"
/note="Vector: pDNR-Dual; Site 1: loxp-Sall; Site 2:
loxP-HindIII; Clones from this library have been
PCR-amplified using gene-specific primers to contain the
complete open reading frame (based on known gene sequences
available from NCBI's RefSeq). Template for PCR is cDNA
derived from either pooled cytoplasmic polyA RNA from 30
cells lines or pooled total RNA from 10 different tissues
(from BD Biosciences/Clontech and Washington University).
PCR products are directionally cloned into the loxp sites
of the pDNR-Dual vector. Library constructed by Dr.
Narayan Bhat, Earl Bere III and Hongling Liao (Gene
Expression Laboratory, Research Technology Program, SAIC
Frederick, NCI-Frederick, Frederick, MD 21702). For
information on which gene each clone represents, please
visit our anonymous ftp site at
ftp://image.llnl.gov/image/rearrayed_plates/IRBK.presv.dat
a Note: this is a NIH_MGC Library."

ORIGIN

Query Match 6.9%; Score 114.4; DB 6; Length 470;
Best Local Similarity 75.5%; Pred. No. 6.1e-13;
Matches 142; Conservative 0; Mismatches 46; Indels 0; Gaps 0;
QY 4 CAACACTGAAACATTTCAGAGCTATGAGATGCTTCTGAATTGATTGCTAGCTCTTG 63
DB 469 CAACACGAGAAAGTTTCAGAGCCATGAGAGATGCTTCTCATTTGATTGCTAGCTCTTG 410
QY 64 GGGCTGCTATGTTCTGCTTGTGCTGTAAGAAATCCCATGAATGACTGGTGAGAGA 123
DB 409 GAGCTGCTATGCTATGCTATCCCAAGAAATTTCCCAAGATGCTATTTGGTGAAGA 350
QY 124 CTTGACACTGCTCTCCACTCATGCAACTGGCTGATAGCGATGGGTAATTTCTTTT 183
DB 349 CTTGGCACTGCTTTCTACTATGCAACTGCTGATATGCAATGACTGAGAGATTC 290
QY 184 TGATTCTT 191
DB 289 CTGTTCTT 282

RESULT 11
CD559689/c 473 bp mRNA linear EST 19-NOV-2003
LOCUS IMAGE:6971769 5, mRNA sequence.
DEFINITION AGENCOURT 14496901 NIH_MGC_195 Homo sapiens CDNA clone
ACCESSION CD559689
VERSION CD559689
KEYWORDS EST.
SOURCE Homo sapiens (human)
ORGANISM Homo sapiens
REFERENCE 1 (bases 1 to 473)
AUTHORS NIH-MGC <http://mgc.nci.nih.gov/>.
TITLE National Institutes of Health, Mammalian Gene Collection (MGC)
JOURNAL Unpublished (1999)
COMMENT On Jun 10, 2003 this sequence version replaced gi:31585757.
Contact: Daniela S. Gerhard, Ph.D.
Office of Cancer Genomics
National Cancer Institute / NIH
Bldg. 31 Rm10A07 Bethesda, MD 20892
Email: cgabds-remail.nih.gov
Tissue Procurement: Narayan Bhat
CDNA Library Preparation: Bhat Laboratory
CDNA Library Arrayed by: The I.M.A.G.E. Consortium (LNLN)
DNA Sequencing by: Agencourt Bioscience Corporation
Clone distribution: MGC clone distribution information can be
found through the I.M.A.G.E. Consortium/LNLN at:
<http://image.llnl.gov>
Plate: IRBK1 row: 9 column: 08
High quality sequence start: 16
High quality sequence stop: 473.

FEATURES
SOURCE

1..473
Location/Qualifiers
/organism="Homo sapiens"
/mol_type="mRNA"
/db_xref="taxon:9606"
/clone="IMAGE:6971769"
/tissue_type="mixed"
/lab_host="DH5A (T1 phage-resistant)"
/clone_lib="NIH MGC_195"
/note="Vector: pDNR-Dual; Site 1: loxp-Sall; Site 2:
loxP-HindIII; Clones from this library have been
PCR-amplified using gene-specific primers to contain the
complete open reading frame (based on known gene sequences
available from NCBI's RefSeq). Template for PCR is cDNA
derived from either pooled cytoplasmic polyA RNA from 30
cells lines or pooled total RNA from 10 different tissues
(from BD Biosciences/Clontech and Washington University).
PCR products are directionally cloned into the loxp sites
of the pDNR-Dual vector. Library constructed by Dr.
Narayan Bhat, Earl Bere III and Hongling Liao (Gene
Expression Laboratory, Research Technology Program, SAIC
Frederick, NCI-Frederick, Frederick, MD 21702). For
information on which gene each clone represents, please
visit our anonymous ftp site at
ftp://image.llnl.gov/image/rearrayed_plates/IRBK.presv.dat
a Note: this is a NIH_MGC Library."

ORIGIN

Query Match 6.9%; Score 114.4; DB 6; Length 473;
Best Local Similarity 75.5%; Pred. No. 6.1e-13;
Matches 142; Conservative 0; Mismatches 46; Indels 0; Gaps 0;
QY 4 CAACACTGAAACATTTCAGAGCTATGAGATGCTTCTGAATTGATTGCTAGCTCTTG 63
DB 472 CAACACGAGAAAGTTTCAGAGCCATGAGAGATGCTTCTCATTTGATTGCTAGCTCTTG 413
QY 64 GGGCTGCTATGTTCTGCTTGTGCTGTAAGAAATCCCATGAATGACTGGTGAGAGA 123
DB 412 GAGCTGCTATGCTATGCTATCCCAAGAAATTTCCCAAGATGCTATTTGGTGAAGA 353
QY 124 CTTGACACTGCTCTCCACTCATGCAACTGGCTGATAGCGATGGGTAATTTCTTTT 183


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Db      352  CTTGGACGACTTTTACTGATCGAAGCTGTGATGAGCAAGAGACTCTGAGATTC 293
Qy      184  TGATTCT 191
Db      292  CTGTCTCT 285

RESULT 12
CD559534      478 bp  mRNA  linear  EST 26-NOV-2003
LOCUS      AGENCOURT 14496928 NIH_MGC_195 Homo sapiens cDNA clone
DEFINITION IMAGE:6971770 5', mRNA sequence.
ACCESSION  CD559534
VERSION     CD559534.2 GI:38558949
KEYWORDS   EST.
SOURCE      Homo sapiens (human)
ORGANISM   Homo sapiens
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Primates; Catarrhini; Hominiidae; Homo.
REFERENCE  1 (bases 1 to 478)
AUTHORS   NIH-MGC http://mgi.nci.nih.gov/.
TITLES    National Institutes of Health, Mammalian Gene Collection (MGC)
JOURNAL    Unpublished (1999)
COMMENT    On Jun 10, 2003 this sequence version replaced gi:31585602.
Contact: Daniela S. Gerhard, Ph.D.
Office of Cancer Genomics
National Cancer Institute / NIH
Bldg. 31 Rm10A07 Bethesda, MD 20892
Email: cgapbs-remail.nih.gov
Tissue Procurement: Narayan Bhat
cDNA Library Preparation: Bhat Laboratory
DNA Sequencing by: Agencourt Bioscience Corporation
Clone distribution: MGC clone distribution information can be
found through the I.M.A.G.E. Consortium/LNL at:
http://image.llnl.gov
Plate: IRBK1 row: 9 column: 09
High quality sequence start: 3
High quality sequence stop: 478.
Location/Qualifiers
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/organism="Homo sapiens"
/mol_type="mRNA"
/db_xref="taxon:9606"
/clone="IMAGE:6971770"
/tissue_type="mixed"
/lab_host="DH5A (T1 phage-resistant)"
/clone_lib="NIH_MGC_195"
/notes="Vector: pDNR-Dual; Site 1: loxp-salI; Site 2:
loxP-HindIII; Clones from this library have been
PCR-amplified using gene-specific primers to contain the
complete open reading frame (based on known gene sequences
available from NCBI's RefSeq). Template for PCR is cDNA
derived from either pooled cytoplasmic polyA RNA from 30
cells lines or pooled total RNA from 10 different tissues
(from BD Biosciences/Clontech and Washington University).
PCR products are directionally cloned into the loxp sites
of the pDNR-Dual vector. Library constructed by Dr.
Narayan Bhat, Earl Bere III and Hongling Liao (Gene
Expression Laboratory, Research Technology Program, SAIC
Frederick, NCI-Frederick, Frederick, MD 21702). For
information on which gene each clone represents, please
visit our anonymous ftp site at
ftp://image.llnl.gov/image/rearrayed_plates/IRBK-presv.dat
a Note: this is a NIH_MGC library."

ORIGIN
Query Match      6.9%; Score 114.4; DB 6; Length 478;
Best Local Similarity 75.5%; Pred. No. 6.1e-13;
Matches 142; Conservative 0; Mismatches 46; Indels 0; Gaps 0;

4 CAAAGACTGAACATTTCAGAGCTATGAGATGCTTCTGAAATTGAGTTGCTAGCTCTTG 63

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Db      22  CAAAGCAGAACCTTTACAGAGCCATGAGATGCTTGCATTTGAGTTGCTAGCTCTTG 81
Qy      64  GGGCTGCTATGTTTTCGCTTGTAGAAAATCCCATGAAATAGACTGGAGAGA 123
Db      82  GAGCTGCTTACGTATGATCCATCCACAGAAAATTCACAAAGTGCATTTGATGAAGAGA 141
Qy      124  CTTGACACTGCTCTCCATCATCGAAGCTTGCTGATAGCGGATGGGTAATTTCTTTT 183
Db      142  CTTGGACATGCTTTTACTGATCGAAGCTGTGATGAGCAATGAGACTCTGAGATTC 201
Qy      184  TGATTCT 191
Db      202  CTGTCTCT 209

RESULT 13
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LOCUS      AGENCOURT 14496993 NIH_MGC_195 Homo sapiens cDNA clone
DEFINITION IMAGE:6971771 5', mRNA sequence.
ACCESSION  CD559533
VERSION     CD559533.2 GI:38558947
KEYWORDS   EST.
SOURCE      Homo sapiens (human)
ORGANISM   Homo sapiens
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Primates; Catarrhini; Hominiidae; Homo.
REFERENCE  1 (bases 1 to 492)
AUTHORS   NIH-MGC http://mgi.nci.nih.gov/.
TITLES    National Institutes of Health, Mammalian Gene Collection (MGC)
JOURNAL    Unpublished (1999)
COMMENT    On Jun 10, 2003 this sequence version replaced gi:31585601.
Contact: Daniela S. Gerhard, Ph.D.
Office of Cancer Genomics
National Cancer Institute / NIH
Bldg. 31 Rm10A07 Bethesda, MD 20892
Email: cgapbs-remail.nih.gov
Tissue Procurement: Narayan Bhat
cDNA Library Preparation: Bhat Laboratory
DNA Sequencing by: Agencourt Bioscience Corporation
Clone distribution: MGC clone distribution information can be
found through the I.M.A.G.E. Consortium/LNL at:
http://image.llnl.gov
Plate: IRBK1 row: 9 column: 10
High quality sequence start: 14
High quality sequence stop: 492.
Location/Qualifiers
1. 492
/organism="Homo sapiens"
/mol_type="mRNA"
/db_xref="taxon:9606"
/clone="IMAGE:6971771"
/tissue_type="mixed"
/lab_host="DH5A (T1 phage-resistant)"
/clone_lib="NIH_MGC_195"
/notes="Vector: pDNR-Dual; Site 1: loxp-salI; Site 2:
loxP-HindIII; Clones from this library have been
PCR-amplified using gene-specific primers to contain the
complete open reading frame (based on known gene sequences
available from NCBI's RefSeq). Template for PCR is cDNA
derived from either pooled cytoplasmic polyA RNA from 30
cells lines or pooled total RNA from 10 different tissues
(from BD Biosciences/Clontech and Washington University).
PCR products are directionally cloned into the loxp sites
of the pDNR-Dual vector. Library constructed by Dr.
Narayan Bhat, Earl Bere III and Hongling Liao (Gene
Expression Laboratory, Research Technology Program, SAIC
Frederick, NCI-Frederick, Frederick, MD 21702). For
information on which gene each clone represents, please
visit our anonymous ftp site at
ftp://image.llnl.gov/image/rearrayed_plates/IRBK-presv.dat

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ORIGIN

a Note: this is a NIH_MGC Library.

Query Match	6.9%	Score 114.4	DB 6	Length 492
Best Local Similarity	75.5%	Pred. No. 6.1e-13		
Matches 142	Conservative 0	Mismatches 46	Indels 0	Gaps 0
QY	4	CAAACTGAAACATTTTCAGAGCTATGAGAAATGCTTCTGAATTTGAGTTTCTAGCTCTTG	63	
Db	33	CAAAAGCGAAGCGTTTCAGAGCCATGAGAGATGCTTCTCATTTGAGTTTGGTACGCTCTTG	92	
QY	64	GGGCGCCCTATGTTTCTGCTCTTTGGCTGAGAAATCCCATGAAATGACGTGGTGCGAGAGA	123	
Db	93	GAGCTGCTTACGTGATGCAATCCCAACAGAAATTCACACAGATGCTCATTTGGTGAAGAGCA	152	
QY	124	CTTTGACACTGCTCTCCACTCATGCAACTGGCTGATAGGCGATGGGTTAATTTTCTTTT	183	
Db	153	CCTTGGCACTGCTTTCTACTCATGCAACTGCTGCTGATAGCAATGACACTGTAGAGATTTC	212	
QY	184	TGATTCCCT	191	
Db	213	CTGTTCCCT	220	

RESULT	14
CDS	CD559536
LOCUS	489 bp mRNA linear EST 26-NOV-2003
DEFINITION	AGNCSOCT14_496A04 NIH MG_C195 Homo sapiens cDNA clone IMAGE:5971768 5' , mRNA sequence.
ACCESSION	CD559536
VERSION	CD559536 .2 GI:38558953
KEYWORDS	EST.
SOURCE	Homo sapiens (human)

FEATURES

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/organism="Homo sapiens"
/mol_type="mRNA"
/db_xref="taxon:9606"
/clone IMAGE:6971768
/tissue_type="mixed"
/lab_host="DH5A (T1 phage-resistant)"
/clone_id="NH MGC 195"
/notes="Vector: pDNR-Dual; Site_1: loxP-SalI; Site_2:
loxP-HindIII; Clones from this library have been
PCR-amplified using gene-specific primers to contain the
complete open reading frame (based on known gene sequences
available from NCBI's RefSeq). Template for PCR is cDNA
derived from either pooled cytoplasmic polyA RNA from 30
cells lines or pooled total RNA from 10 different tissues
(from BD Biosciences/Clontech and Washington University).

```

PCR products are directionally cloned into the Xsp sites of the pDNR-Dual vector. Library constructed by Dr. Narayan Bhat, Earl Bere III and Hongling Lao (Gene Expression Laboratory, Research Technology Program, SAIC Frederick, NCI-Frederick, Frederick, MD 21702). For information on which gene each clone represents, please visit our anonymous ftp site at ftp://image.llnl.gov/image/rearranged_plates/IRBK.presv.data a Note: this is a NIH_MGC Library."

Query Match	Best Local Similarity	6.8% ; Score 113.2 ; DB 6 ; Length 489 ;
Matches 142 ;	Conservative 0 ; Mismatches 48 ; Indels 0 ; Gaps 0 ;	
Oy	2	GGCAACACGTGAACATTTCAGAGCTATGAGATGCTTCTGAATTTGAGTTGCTAGCTCT 61
Db	29	GACCAACGCGAAGACGTTTCAGAGCCATGAGAGAGCTTCTCATATTTGAGTTGCTAGCTCT 88
Oy	62	TGGGGCGTCCATATGTTCTGSCCTTTTGCTAGAGAAATCCCATGATGATGACCTGGGCGAGA 121
Db	89	TGGAAGTCTCTACGTGATGATGCCATCCCAAGAAATTTCCCAAGTGCATTTGGTGAAGA 148
Oy	122	GACCTTGACACTGCTCTCCACTATGCACTTGCTGATNAGGCGATGGGGTAAATTTTCTT 181
Db	149	GACCTTGGCACTGCTTTTCTACTCATCGAACCTGCTGATNAGCAATGAGACTGTGAGAT 208
Oy	182	TTTGATTTCT 191
Db	209	TTCTGTTTCT 218

RESULT 15	
CD559686/c	
LOCUS	CD559686
DEFINITION	AGNENCOURT 14497093 NIH MGC 195 Homo sapiens cDNA clone IMAGE:6971772 3', mRNA sequence.
ACCESSION	CD559686
VERSION	CD559686.1 GI:31585754
KEYWORDS	EST.
SOURCE	Homo sapiens (human)
ORGANISM	Homo sapiens

FEATURES

SOURCE

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/organism="Homo sapiens"
/mol_type="mRNA"
/db_xref="taxon:9606"
/clone="IMAGE:6971772"
/tissue_type="mixed"
/lab_host="DH5A (r1 phage-resistant)"
/clone_id="NH MC-195"
/notes="vector: pDNR-Dual, Site 1: loxP-Sall, Site 2:
Xba-HindIII; Clones from this library have been

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PCR-amplified using gene-specific primers to contain the complete open reading frame (based on known gene sequences available from NCBI's RefSeq). Template for PCR is cDNA derived from either pooled cytoplasmic polyA RNA from 30 cells lines or pooled total RNA from 10 different tissues (from BD Biosciences/Clontech and Washington University). PCR products are directionally cloned into the loxP sites of the pDNR-Dual vector. Library constructed by Dr. Narayan Bhat, Earl Bere III and Hongling Liao (Gene Expression Laboratory, Research Technology Program, SAIC Frederick, NCI-Frederick, Frederick, MD 21702). For information on which gene each clone represents, please visit our anonymous ftp site at ftp://image.llnl.gov/image/rearrayed_plates/IRBK.presv.dat
a Note: this is a NIH_MGC Library."

ORIGIN

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Query Match      6.7%; Score 111.2; DB 6; Length 456;
Best Local Similarity 74.5%; Pred. No. 2.7e-12;
Matches 140; Conservative 0; Mismatches 48; Indels 0; Gaps 0;

QY 4 CAAACACTGAACATTCAGAGCTATGAGAATGCTTCGATTTGAGTTGGCTAGCTCTTG 63
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Db 456 CCAAGCAGAACGTTTCAGAGCCATGAGAGATGCTTCGATTTGAGTTGGCTAGCTCTTG 397

QY 64 GGGCTGCTATGTTTCTGCTTGTCTGTAGAAAATCCCATGAATAGACTGGTGCAGAGA 123
   ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| |||
Db 396 GAGCTGCTACGTGTATGTCATCCCAAGAAATCCCAAGTGCATTGGTGAAGAGA 337

QY 124 CCTTGACACTGCTTCATCATGAACTGGCTGATAGGCGATGGGTAATTTCTTTT 183
   ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| |||
Db 336 CCTTGGCACTGCTTCTACTCATGAACTGCTGATAGCCAAATGAGACTCTGAGATTC 277

QY 184 TGATTCT 191
   ||| |||
Db 276 CTGTTCT 269

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Search completed: August 8, 2005, 08:46:11
Job time : 7058.44 secs

GenCore version 5.1.6
Copyright (c) 1993 - 2005 Compugen Ltd.

OM nucleic - nucleic search, using sw model

Run on: August 8, 2005, 13:33:24 ; Search time 2938.12 Seconds
(without alignments)
10060.080 Million cell updates/sec

Title: US-10-787-382-4
Perfect score: 610
Sequence: 1 caagcacaacacgcgaacatc.....acagatgaataatatttgcag 610

Scoring table: OLIGO_NUC
Gapop 60.0 , Gapext 60.0

Searched: 4708233 seqs, 24227607955 residues

Word size : 0
Total number of hits satisfying chosen parameters: 9416466

Minimum DB seq length: 0
Maximum DB seq length: 2000000000

Post-processing: Listing first 45 summaries

Database :

GenEmbl.*
1: gb_ba:*
2: gb_bhg:*
3: gb_in:*
4: gb_om:*
5: gb_ov:*
6: gb_pat:*
7: gb_ph:*
8: gb_pl:*
9: gb_pr:*
10: gb_ro:*
11: gb_scs:*
12: gb_sy:*
13: gb_un:*
14: gb_vt:*

Pred. No. is the number of results predicted by chance to have a
score greater than or equal to the score of the result being printed,
and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	Query Match	Length	ID	Description
1	610	100.0	610	AF331919	Canis fam
2	610	100.0	610	BD211558	Canine an
3	610	100.0	610	BD211559	Canine an
4	610	100.0	610	AR241536	Sequence
5	610	100.0	610	AR241537	Sequence
6	610	100.0	610	AR254492	Sequence
7	610	100.0	610	AR254493	Sequence
8	402	65.9	402	BD211560	Canine an
9	402	65.9	402	BD211561	Canine an
10	402	65.9	402	AR241538	Sequence
11	402	65.9	402	AR241539	Sequence
12	402	65.9	402	AR254494	Sequence
13	402	65.9	402	AR254495	Sequence
14	393	64.4	405	AR300436	Sequence
15	393	64.4	405	AX083939	Sequence
16	345	56.6	345	BD211562	Canine an
17	345	56.6	345	BD211563	Canine an
18	345	56.6	345	AR241540	Sequence
19	345	56.6	345	AR241541	Sequence

20	345	56.6	345	6	AR254496	Sequence
21	345	56.6	345	6	AR254497	Sequence
22	271	44.4	356	4	AF091133	Canis fam
23	250	41.0	343	6	AX083948	Sequence
24	170	27.9	1658	4	AF331920	Canis fam
25	43	7.0	520	4	OA035038	Ovis aries
26	43	7.0	1140	4	OA11V1	Ovis aries
27	42	6.9	405	4	SSC010088	Sus scrofa
28	42	6.9	529	4	SSC133452	Sus scrofa
29	41	6.7	405	4	AF068770	Felis cat
30	41	6.7	405	4	BTINTLEU5	B. taurus
31	41	6.7	838	4	AF025436	Felis cat
32	41	6.7	197131	4	AC149665	Bos taurus
33	40	6.6	405	4	ECU91947	Equus caball
34	30	4.9	354	4	AF051372	Felis cat
35	29	4.8	213042	2	AC151015	Callithrix
36	28	4.6	405	9	AF294756	Salimiri b
37	28	4.6	564	10	CP034588	Cavia porce
38	25	4.1	150124	2	AC148886	Otolemur
39	25	4.1	167036	2	AC148855	Otolemur
40	22	3.6	27	6	I39768	Sequence
41	22	3.6	32	6	BD211604	Canine an
42	22	3.6	32	6	AR241582	Sequence
43	22	3.6	32	6	AR254538	Sequence
44	22	3.6	47	6	I71456	Sequence
45	22	3.6	405	9	CEYINSA	Cercopithecus

ALIGNMENTS

RESULT 1
AF331919
LOCUS AF331919 610 bp mRNA linear MAM 04-OCT-2001
DEFINITION Canis familiaris interleukin-5 mRNA, complete cds.
ACCESSION AF331919
VERSION AF331919.1 GI:15919180

SOURCE

Canis familiaris (dog)
Canis familiaris

REFERENCE

Yang, S., Sellins, K.S., Weber, B. and McCall, C.
1 (bases 1 to 610)
Eukaryota; Metazoa; Chordata; Craniata; Vertebrate; Euteleostomi;
Mammalia; Eutheria; Carnivora; Fissipedia; Canidae; Canis.

TITLE

Canine interleukin-5: molecular characterization of the gene and
expression of biologically active recombinant protein

Best Local Similarity 100.0%; Pred. No. 0;
Matches 610; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

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DB 1 CAAGGCAAAACATGAACTTTGAGAGGATGAGATGCTTGTGAATTTGAGTTGGCTAGC 60
QY 61 TCTTGGGGCTGCTGATGTTTCTGCTTGTGCTGTAAGAAAATCCATGATAGACTGTGGC 120
DB 61 TCTTGGGGCTGCTGATGTTTCTGCTTGTGCTGTAAGAAAATCCATGATAGACTGTGGC 120
QY 121 AGAACCCTGACCTGCTCTCCACTCATCGAACTTGGCTGATAGCCGATGGAACTTGAT 180
DB 121 AGAACCCTGACCTGCTCTCCACTCATCGAACTTGGCTGATAGCCGATGGAACTTGAT 180
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DB 181 GATTCTACTCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCT 240
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QY 601 TATATTTGAG 610
DB 601 TATATTTGAG 610
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RESULT 2
LOCUS BD211558
DEFINITION Canine and feline immunoregulatory proteins, nucleic acid molecules
ACCESSION BD211558
VERSION BD211558.1 GI:33021328
KEYWORDS JP 2002516104-A/64.
SOURCE Canis familiaris (dog)
ORGANISM Canis familiaris
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Carnivora; Placentalia; Canidae; Canis.
1 (bases 1 to 610)
Sim,G., Yang,S., Dreytz,M.J., and Wonderling,R.S.
Canine and feline immunoregulatory proteins, nucleic acid molecules
and method of using the same
Patent: JP 2002516104-A 64 04-JUN-2002;
HESKA CORP
JOURNAL OS Canis familiaris (dog)
PN JP 2002516104-A/64
PD 04-JUN-2002
PF 28-MAY-1999 JP 2000551002
PI 29-MAY-1998 US 60/087306
PR GEKHEE SIM,SHUMIN YANG,MATTHEW J DREITZ,RAMANI S WONDERLING PC
C12N15/09,A61K31/7086,A61K38/00,A61K38/21,A61K39/00,A61K39/395,

PC A61K39/395,
PC A61K45/00,A61K48/00,A61P37/02,A61P37/04,C07K14/475,C07K14/535,
PC C07K14/54,
PC C07K14/56,C07K14/705,C07K16/24,C07K16/28,C12N1/21,C12N5/10,PC
G01N33/15
PC G01N33/50,C12N15/00,A61K37/02,A61K37/66,C12N5/00 CC Canine
and feline immunoregulatory proteins, nucleic acid CC
molecules and
CC method of using the same
FH Key Location/Qualifiers
FT CDS (29)..(430).
FEATURES
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1..610
/organism="Canis familiaris"
/mol_type="genomic DNA"
/db_xref="taxon:9615"

ORIGIN
Query Match 100.0%; Score 610; DB 6; Length 610;
Best Local Similarity 100.0%; Pred. No. 0;
Matches 610; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

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DB 1 CAAGGCAAAACATGAACTTTGAGAGGATGAGATGCTTGTGAATTTGAGTTGGCTAGC 60
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DB 61 TCTTGGGGCTGCTGATGTTTCTGCTTGTGCTGTAAGAAAATCCATGATAGACTGTGGC 120
QY 121 AGAACCCTGACCTGCTCTCCACTCATCGAACTTGGCTGATAGCCGATGGAACTTGAT 180
DB 121 AGAACCCTGACCTGCTCTCCACTCATCGAACTTGGCTGATAGCCGATGGAACTTGAT 180
QY 181 GATTCTACTCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCT 240
DB 181 GATTCTACTCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCT 240
QY 241 AGACACATTTGAAGAACCAACCTGCGCCACGGGAGGCTGTGATTAAGTATTCCTGCTG 300
DB 241 AGACACATTTGAAGAACCAACCTGCGCCACGGGAGGCTGTGATTAAGTATTCCTGCTG 300
QY 301 GCTTTTATTAATAAGACATAGAGCGGCAAAAAAGGTGTGACAGAGAAAGATGAG 360
DB 301 GCTTTTATTAATAAGACATAGAGCGGCAAAAAAGGTGTGACAGAGAAAGATGAG 360
QY 361 AGTGACAAAGTTCTTACGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTG 420
DB 361 AGTGACAAAGTTCTTACGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTG 420
QY 421 ACCGAAAGTTGAGAACCAACCGGCTTATTTGTAGTGAAGATTTTGGAGAAAGTGTG 480
DB 421 ACCGAAAGTTGAGAACCAACCGGCTTATTTGTAGTGAAGATTTTGGAGAAAGTGTG 480
QY 481 TTTGGCGATGAGATGAGAGGCGCAACCAAGTACGCTTATATGCGCCAGTAACTAAGC 540
DB 481 TTTGGCGATGAGATGAGAGGCGCAACCAAGTACGCTTATATGCGCCAGTAACTAAGC 540
QY 541 TTTGAGACAAAGTAAATATTTGAGGCTCTGCTGCTGCTGCTGCTGCTGCTGCTGCTG 600
DB 541 TTTGAGACAAAGTAAATATTTGAGGCTCTGCTGCTGCTGCTGCTGCTGCTGCTGCTG 600
QY 601 TATATTTGAG 610
DB 601 TATATTTGAG 610
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RESULT 3
LOCUS BD211559/c
DEFINITION Canine and feline immunoregulatory proteins, nucleic acid molecules
ACCESSION BD211559
610 bp DNA linear PAT 17-JUN-2003
Canine and feline immunoregulatory proteins, nucleic acid molecules
and method of using the same.

VERSION	KEYWORDS
BD211559.1	GI:33021329
SOURCE	JP 2002516104-A/65.
ORGANISM	Canis familiaris (dog)
REFERENCE	Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
AUTHORS	Mammalia; Eutheria; Carnivora; Fissipedia; Canidae; Canis.
TITLE	Sim.G., Yang.S., Dreitz,M.J. and Wonderling,R.S. Canine and feline immunoregulatory proteins, nucleic acid molecules and method of using the same
JOURNAL	Patent: JP 2002516104-A 65 04-JUN-2002; HESKA CORP
COMMENT	OS Canis familiaris (dog) PN JP 2002516104-A/65 PD 04-JUN-2002 PF 28-MAY-1999 JP 2000551002 PR 29-MAY-1998 US 60/087306 PI GEKKEE SIM, SHUDIN YANG, MATTHEW J DREITZ, RAMANI S WONDERLING PC C12N15/09 A61K31/7088, A61K38/00, A61K38/21, A61K39/00, A61K39/335, PC A61K39/395, PC A61K45/00, A61K48/00, A61P37/02, A61P37/04, C07K14/475, C07K14/535, PC C07K14/56, C07K14/705, C07K16/24, C07K16/28, C12N1/21, C12N5/10, PC G01N33/15, PC G01N33/50, C12N15/00, A61K37/02, A61K37/86, C12N5/00 CC Canine molecules and CC method of using the same FH Key Location/Qualifiers FT source 1..610 FT /organism='Canis familiaris (dog)'. FEATURES source Location/Qualifiers 1..610 /organism='Canis familiaris' /mol_type='genomic DNA' /db_xref='taxon:9615'
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Best Local Similarity	100.0%; Pred. No. 0;
Matches	610; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
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Dd	610 CAAGCAAACTGACATTTTCAGAGCTATGAGAATGCTTGTGAATTGGATTGCTAAGC 551
OY	61 TCTTGCGGCGCTGCATATGTTTCTGCGCTTGTGCTGTGAATAATCCCATGATTAAGCTGTGCC 120
Dd	550 TCTTGCGGCGCTGCATATGTTTCTGCGCTTGTGCTGTGAATAATCCCATGATTAAGCTGTGCC 491
OY	121 AGAGACTTTGACACTGCTCTCCACTCATCGAACTTGCGTGTATAGCGATGGAACTTGAT 180
Dd	490 AGAGACTTTGACACTGCTCTCTCCACTCATCGAACTTGCGTGTATAGCGATGGAACTTGAT 431
OY	181 GATTCTTACTCTGAAAAATAAAAATACCAACTGTGCAATTAAGAAGTTTTTCAAGGTTAT 240
Dd	430 GATTCTTACTCTGAAAAATAAAAATACCAACTGTGCAATTAAGAAGTTTTTCAAGGTTAT 371
OY	241 AGACACATTTGAAGAACCAAACTGCCCAAGGGGAGGCTGTGATTAACATATTCAAAACCTT 300
Dd	370 AGACACATTTGAAGAACCAAACTGCCCAAGGGGAGGCTGTGATTAACATATTCAAAACCTT 311
OY	301 GTCTTTAATAAAGAACACATAGAGCGCCAAAAAAGTGTGCAAGAGAAAGATGTGAG 360
Dd	310 GTCTTTAATAAAGAACACATAGAGCGCCAAAAAAGTGTGCAAGAGAAAGATGTGAG 251
OY	361 AGTGCAGAAAGTTCTTAGACTACCTTGCAAGATATTTCTTGATTAATAACACCGAGTGAAC 420
Dd	250 AGTGCAGAAAGTTCTTAGACTACCTTGCAAGATATTTCTTGATTAATAACACCGAGTGAAC 191
OY	421 ACCGGAAGTTGAGAACCAACCGGCTTATTTGTAGTGAAGAAATTTTGAGAGAAATGTGTT 480
Dd	190 ACCGGAAGTTGAGAACCAACCGGCTTATTTGTAGTGAAGAAATTTTGAGAGAAATGTGTT 131

Qy	481	TTTGCGCATGAGATGAGGGGCAACCAACAGTAGGACTTAAATGGCCAGTAACTAAAC	540
Db	130	TTTGGCGATGAGATGAGGGCCCAACCAACAGTAGGACTTAAATGGCCAGTAACTAAAC	71
Qy	541	TTTCAGACAAAGTAAATATTTTCAGGACCTCTACTCTTATTCACCTTCACAGATGAA	600
Db	70	TTTCAGACAAAGTAAATATTTTCAGGACCTCTACTCTTATTCACCTTCACAGATGAA	11
Qy	601	TATATTTGAG 610	
Db	10	TATATTTGAG 1	
RESULT 4			
AR241536			
LOCUS	AR241536	610 bp	DNA
DEFINITION	Sequence 80 from patent US 6471957.		
ACCESSION	AR241536		
VERSION	AR241536.1	GI:27287245	
KEYWORDS			
SOURCE	Unknown.		
ORGANISM	Unknown.		
REFERENCE	Unclassified.		
AUTHORS	1 (bases 1 to 610)		
TITLE	Sim.G.-K., Yang,S., Dreitz,M.J. and Wonderling,R.S.		
JOURNAL	Canine IL-4 immunoregulatory proteins and uses thereof		
FEATURES	Patent: US 6471957-A 80 25-OCT-2002;		
source	Location/Qualifiers		
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ORIGIN	/organism="unknown"		
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Query Match	100.0%;	Score 610;	DB 6;
Best Local Similarity	100.0%;	Pred. No. 0;	
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Gaps 0;			
Qy	1	CAAGCGAAACCTGACATTTACAGGCTATGAGAAATGCTTCTGAATTTGACTTGTGC	60
Db	1	CAAGCGAAACCTGACATTTACAGGCTATGAGAAATGCTTCTGAATTTGACTTGTGC	60
Qy	61	TCTTGGGGCTGCTATGTTTCTGCTTGTGTAAGAAATCCCATGATAGCTGTGGC	120
Db	61	TCTTGGGGCTGCTATGTTTCTGCTTGTGTAAGAAATCCCATGATAGCTGTGGC	120
Qy	121	AGAGACCTTGACACTGCTCTTCACCTCATTCGAATCTTGCTGATAGGCGATGGAACTGAT	180
Db	121	AGAGACCTTGACACTGCTCTTCACCTCATTCGAATCTTGCTGATAGGCGATGGAACTGAT	180
Qy	181	GATTCCTACCTCGTAAATTAATAATTCACCACTGTGCTTAAAGATTTTTCAGGGAT	240
Db	181	GATTCCTACCTCGTAAATTAATAATTCACCACTGTGCTTAAAGATTTTTCAGGGAT	240
Qy	241	AGACACATTTGAAGACCAACTGGCCACGGGGAGCTGTGGATTAACCTATTCACAACTT	300
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Qy	301	GTCCTTTAATAAAGACACATAGAGCGCCAAAAAAGTGTGACAGAGAAAGATGAG	360
Db	301	GTCCTTTAATAAAGACACATAGAGCGCCAAAAAAGTGTGACAGAGAAAGATGAG	360
Qy	361	AGTACAAAGTTCCTAGACTACCGCAAGTATTTCTTGTTATTAACACCGAGTGCAC	420
Db	361	AGTACAAAGTTCCTAGACTACCGCAAGTATTTCTTGTTATTAACACCGAGTGCAC	420
Qy	421	ACCGAAAGTTGAGAACCAACCGGCTTATGTAGTGAAGATTTTGGAGAAATGCTTT	480
Db	421	ACCGAAAGTTGAGAACCAACCGGCTTATGTAGTGAAGATTTTGGAGAAATGCTTT	480
Qy	481	TTTGGCGATGAGATGAGGGCACAACAGTAGGACTTAAATGGCCAGTAACTAAAC	540
Db	481	TTTGGCGATGAGATGAGGGCACAACAGTAGGACTTAAATGGCCAGTAACTAAAC	540

QY 541 TTCAGAGCAAAAGTAATTTTCAGGCACTCTACTTATTCACCTTACAGATGAAA 600
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Db 541 TTCAGAGCAAAAGTAATTTTCAGGCACTCTACTTATTCACCTTACAGATGAAA 600
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QY 601 TATATTTGAG 610
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Db 601 TATATTTGAG 610
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RESULT 5
AR241537/c 610 bp DNA linear PAT 20-DEC-2002
LOCUS AR241537
DEFINITION Sequence 82 from patent US 6471957.
ACCESSION AR241537
VERSION AR241537.1 GI:27287246
KEYWORDS
SOURCE
ORGANISM Unknown.
REFERENCE 1 (bases 1 to 610)
AUTHORS Sim,G.-K., Yang,S., Dreitz,M.J. and Wonderling,R.S.
TITLE Canine IL-4 immunoregulatory proteins and uses thereof
JOURNAL Patent: US 6471957-A 82 28-OCT-2002;
FEATURES
source 1..610
/organism="unknown"
/mol_type="genomic DNA"
ORIGIN
Query Match 100.0%; Score 610; DB 6; Length 610;
Best Local Similarity 100.0%; Pred.No. 0;
Matches 610; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
QY 1 CAAGGCAAAACACTGAAACATTTCAGAGCTATGAGATGCTTCTGAATTTGAGTTTGCTAGC 60
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Db 610 CAAGGCAAAACACTGAAACATTTCAGAGCTATGAGATGCTTCTGAATTTGAGTTTGCTAGC 551
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QY 61 TCTTGGGGCTGCGCTATGTTTCTGCTTGTCTGTAGAAAATCCATGATAGACTGTGGC 120
| | | | |
Db 550 TCTTGGGGCTGCGCTATGTTTCTGCTTGTCTGTAGAAAATCCATGATAGACTGTGGC 491
| | | | |
QY 121 AGAAGCTTGACACTGCTCTCACTCATCGAATTTGGCTGATAGCGCATGGAACTTGAT 180
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Db 490 AGAAGCTTGACACTGCTCTCACTCATCGAATTTGGCTGATAGCGCATGGAACTTGAT 431
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QY 181 GATTCTACTCTCTGAAAATATAAAATCAACAATGATTAAGAAATTTTCAGGGTAT 240
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Db 430 GATTCTACTCTCTGAAAATATAAAATCAACAATGATTAAGAAATTTTCAGGGTAT 371
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QY 241 AGACACATTTGAAGAACCAACCTGCCACGGGAGGCTGTGATTAACATTTCCAAAATT 300
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Db 370 AGACACATTTGAAGAACCAACCTGCCACGGGAGGCTGTGATTAACATTTCCAAAATT 311
| | | | |
QY 301 GTCTTTTATTAAGAACACATAGAGCGCCAAAAAAGGTGTGACAGAGAAAGATGAG 360
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Db 310 GTCTTTTATTAAGAACACATAGAGCGCCAAAAAAGGTGTGACAGAGAAAGATGAG 251
| | | | |
QY 361 AGTGACAAAGTTCTAGACTACCTGCAAGTATTTCTTGTTATTAATAACCCGAGTGAC 420
| | | | |
Db 250 AGTGACAAAGTTCTAGACTACCTGCAAGTATTTCTTGTTATTAATAACCCGAGTGAC 191
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| | | | |
Db 190 ACCGGAAGTTGAGAACCAACCGGCTTATTTGATGTGAAGATTTTGAGAGAAATGGTTT 131
| | | | |
QY 481 TTTGGCGATGAGATGAGGGCCAAACCAAGATGAGGATTAATGGCCAGTTAACTAAGC 540
| | | | |
Db 130 TTTGGCGATGAGATGAGGGCCAAACCAAGATGAGGATTAATGGCCAGTTAACTAAGC 71
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QY 541 TTCAGAGCAAAAGTAATTTTCAGGCACTCTACTTATTCACCTTACAGATGAAA 600
| | | | |
Db 70 TTCAGAGCAAAAGTAATTTTCAGGCACTCTACTTATTCACCTTACAGATGAAA 11
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QY 601 TATATTTGAG 610
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Db 10 TATATTTGAG 1
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RESULT 6
AR254492 610 bp DNA linear PAT 20-DEC-2002
LOCUS AR254492
DEFINITION Sequence 80 from patent US 6482403.
ACCESSION AR254492
VERSION AR254492.1 GI:27303380
KEYWORDS
SOURCE
ORGANISM Unknown.
REFERENCE 1 (bases 1 to 610)
AUTHORS Sim,G.-K., Yang,S., Dreitz,M.J. and Wonderling,R.S.
TITLE Canine IL-13 immunoregulatory proteins and uses thereof
JOURNAL Patent: US 6482403-A 80 19-NOV-2002;
FEATURES
source 1..610
/organism="unknown"
/mol_type="genomic DNA"
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Query Match 100.0%; Score 610; DB 6; Length 610;
Best Local Similarity 100.0%; Pred.No. 0;
Matches 610; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
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Db 301 GTCTTTTATTAAGAACACATAGAGCGCCAAAAAAGGTGTGACAGAGAAAGATGAG 360
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Db 361 AGTGACAAAGTTCTAGACTACCTGCAAGTATTTCTTGTTATTAATAACCCGAGTGAC 420
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QY 601 TATATTTGAG 610
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Db 601 TATATTTGAG 610
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RESULT 7
 AR254493/c
 LOCUS AR254493 610 bp DNA linear PAT 20-DEC-2002
 DEFINITION Sequence 82 from patent US 6482403.
 ACCESSION AR254493
 VERSION AR254493.1 GI:27303381
 KEYWORDS
 SOURCE Unknown.
 ORGANISM Unknown.
 REFERENCE
 1 (bases 1 to 610)
 Sim,G.-K., Yang,S., Dreibitz,M.J. and Wonderling,R.S.
 Canine IL-13 immunoregulatory proteins and uses thereof
 Patent: US 6482403-A 82 19-NOV-2002;
 JOURNAL Location/Qualifiers
 FEATURES
 source 1..610
 /organism="unknown"
 /mol_type="genomic DNA"

ORIGIN
 Query Match 100.0%; Score 610; DB 6; Length 610;
 Best Local Similarity 100.0%; Pred. No. 0;
 Matches 610; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

1 CAAGGCAACACGACGATTCAGAGCTATGAGAAATGCTGTAATTGAGTTGCTAGC 60
 610 CAAGGCAACACGACGATTCAGAGCTATGAGAAATGCTGTAATTGAGTTGCTAGC 551
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 550 TCTTGGGGCTGCTGATTTCTGCTTGTGCTGTAAGAAATCCCATGAAATGAGCTGAGC 491
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 490 AGAGACCTTGACACTGCTCTTCATCATTCGAACTTGCTGATAGCCGATGGAACCTGAT 431
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 430 GATTCCTACTGCTGAAATTAATAATCAACAATGCTGATTAAGAAATTTTCAGGGTAT 371
 241 AGACACCTTGAGAAACCAACCTGCGCAGGGAGGCTGTGATTAACCTATTCGAAACTT 300
 370 AGACACCTTGAGAAACCAACCTGCGCAGGGAGGCTGTGATTAACCTATTCGAAACTT 311
 301 GCTCTTAATAAAGACACATAGAGCGCCAAAAAAGGTGTGCAGAGAGAAAGATGAG 360
 310 GCTCTTAATAAAGACACATAGAGCGCCAAAAAAGGTGTGCAGAGAGAAAGATGAG 251
 361 AGTGACAAAGTCTCTAGACCTGCAAGTATTTCTTGGTGTATTAACACCGAGTGGAC 420
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 481 TTGGCAGTGAAGATGAGGCGCAACCAACAGTAGGAGCTTAATGCGCAGTAACTAAGC 540
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 601 TATATTTGAG 610
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LOCUS BD211560 402 bp DNA linear PAT 17-JUN-2003
 DEFINITION Canine and feline immunoregulatory proteins, nucleic acid molecules
 ACCESSION BD211560
 VERSION BD211560.1 GI:33021330
 KEYWORDS JP 2002516104-A/66.
 SOURCE Canis familiaris (dog)
 ORGANISM Canis familiaris
 Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
 Mammalia; Eutheria; Carnivora; Fissipedia; Canidae; Canis.
 REFERENCE
 1 (bases 1 to 402)
 Sim,G., Yang,S., Dreibitz,M.J. and Wonderling,R.S.
 Canine and feline immunoregulatory proteins, nucleic acid molecules
 and method of using the same
 Patent: JP 2002516104-A 66 04-JUN-2002;
 JOURNAL HESKA CORP
 COMMENT
 OS Canis familiaris (dog)
 PN JP 2002516104-A/66
 PD 04-JUN-2002
 PF 28-MAY-1999 JP 2000551002
 PR 29-MAY-1998 US 60/087306
 PI GEKKEE SIM,SHUMIN YANG,MATTHEW J DREITZ,RAMANI S WONDERLING PC
 C12N15/09,A61K31/7088,A61K38/00,A61K39/00,A61K39/395,
 PC A61K39/395,
 PC A61K45/00,A61K48/00,A61P37/02,A61P37/04,C07K14/475,C07K14/535,
 PC C07K14/54,
 PC C07K14/56,C07K14/705,C07K16/24,C07K16/28,C12N1/21,C12N5/10, PC
 G01N33/15
 PC G01N33/50,C12N15/00,A61K37/02,A61K37/66,C12N5/00 CC Canine
 and feline immunoregulatory proteins, nucleic acid CC
 molecules and
 CC method of using the same
 FT Key Location/Qualifiers
 FT source 1..402
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 /organism="Canis familiaris"
 /mol_type="genomic DNA"
 /db_xref="taxon:9615"

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 Best Local Similarity 100.0%; Pred. No. 3,2e-217;
 Matches 402; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

29 ATGGAATGCTTGTGAATTTGAGTTGCTAGCTTGGGCTGCTATGTTTCTGCTTT 88
 1 ATGGAATGCTTGTGAATTTGAGTTGCTAGCTTGGGCTGCTATGTTTCTGCTTT 60
 89 GCTGTAGAAAATCCCATGAAATAGACTGTGGCAGAGACCTTGAACACTGCTCTCCACTAT 148
 61 GCTGTAGAAAATCCCATGAAATAGACTGTGGCAGAGACCTTGAACACTGCTCTCCACTAT 120
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 121 CGAATCTGGCTGATAGGCGATGGGAACCTGATGTTCTCTACTCTCTGAAAAATTAATAC 180
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 361 GATTTCTTGTGTATTAACACCGAGTGAACACCGGAAGT 402

RESULT 9
BD211561/c 402 bp DNA linear PAT 17-JUN-2003
LOCUS
DEFINITION Canine and feline immunoregulatory proteins, nucleic acid molecules
ACCESSION BD211561
VERSION BD211561.1 GI:33021331
KEYWORDS JP 2002516104-A/67.
SOURCE
ORGANISM Canis familiaris (dog)
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Carnivora; Fissipedia; Canidae; Canis.
1 (bases 1 to 402)
Sim.G., Yang.S., Dreitz,M.J. and Wonderling,R.S.
REFERENCE
AUTHORS Canine and feline immunoregulatory proteins, nucleic acid molecules
TITLE and method of using the same
JOURNAL Patent: JP 2002516104-A 67 04-JUN-2002;
HESKA CORP
COMMENT OS Canis familiaris (dog)
PN JP 2002516104-A/67
PD 04-JUN-2002
PR 28-MAY-1999 JP 2000551002
PI 29-MAY-1998 US 60/087306
PI GEKKEB SIM,SHUMIN YANG,MATTHEW J DREITZ,RAMANI S WONDERLING PC
C12N15/09,A61K31/7088,A61K38/00,A61K39/00,A61K39/395,
PC A61K39/395,
PC A61K45/00,A61K48/00,A61P37/02,A61P37/04,C07K14/475,C07K14/535,
PC C07K14/54,
PC C07K14/56,C07K14/705,C07K16/24,C07K16/28,C12N1/21,C12N5/10, PC
G01N33/15,
PC G01N33/50,C12N15/00,A61K37/02,A61K37/66,C12N5/00 CC Canine
and feline immunoregulatory proteins, nucleic acid CC
molecules and
CC method of using the same
FH Key Location/Qualifiers
FT source 1..402
/organism="Canis familiaris (dog)".
1..402
Location/Qualifiers
/organism="Canis familiaris"
/mol_type="genomic DNA"
/db_xref="taxon:9615"

ORIGIN
Query Match 65.9%; Score 402; DB 6; Length 402;
Best Local Similarity 100.0%; Pred. No. 3.2e-217;
Matches 402; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 29 ATGAGAATGCTTCTGAATTTGAGTTTCTAGCTCTTGCGGCTGCTATGTTTCTGCTTT 88
DB 402 ATGAGAATGCTTCTGAATTTGAGTTTCTAGCTCTTGCGGCTGCTATGTTTCTGCTTT 343
QY 89 GCTGTAGAAAATCCCATGAAATAGACTGTGTGGCAGAGACTTTGACACTGCTTCCACTCAT 148
DB 342 GCTGTAGAAAATCCCATGAAATAGACTGTGTGGCAGAGACTTTGACACTGCTTCCACTCAT 283
QY 149 CGAATCTGGCTGATAGGCGCATGGAACTGATGATTTCTCTCTGAAAAATAAAAATCAC 208
DB 282 CGAATCTGGCTGATAGGCGCATGGAACTGATGATTTCTCTCTGAAAAATAAAAATCAC 223
QY 209 CAATCTGCATTAAGAAGTTTTCAGGGTATAGACATTTGAAGAACCAACTGCCAC 268
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QY 269 GGGAGGCTGTGATTAACATATTCGAAACTTGTCTTTAATAAAGAACCATAGAGCGC 328
DB 162 GGGAGGCTGTGATTAACATATTCGAAACTTGTCTTTAATAAAGAACCATAGAGCGC 103
QY 329 CAAAAAAGGTGTGAGAGAAAGATGAGATGACAAAGTTCTTGAAGTCACTGCGCA 388
DB 102 CAAAAAAGGTGTGAGAGAAAGATGAGATGACAAAGTTCTTGAAGTCACTGCGCA 43

QY 389 GTATTTCTTGTTGATATAAACCAGAGTGAGACCCGAAAGT 430
DB 42 GTATTTCTTGTTGATATAAACCAGAGTGAGACCCGAAAGT 1

RESULT 10
AR241538 402 bp DNA linear PAT 20-DEC-2002
LOCUS
DEFINITION Sequence 83 from patent US 6471957.
ACCESSION AR241538
VERSION AR241538.1 GI:27287247
KEYWORDS
SOURCE Unknown.
ORGANISM Unknown.

REFERENCE
AUTHORS Unclassified.
TITLE 1 (bases 1 to 402)
JOURNAL Sim.G., Yang.S., Dreitz,M.J. and Wonderling,R.S.
Canine IL-4 immunoregulatory proteins and uses thereof
Patent: US 6471957-A 83 29-OCT-2002;
FEATURES
source 1..402
Location/Qualifiers
/organism="unknown"
/mol_type="genomic DNA"

ORIGIN
Query Match 65.9%; Score 402; DB 6; Length 402;
Best Local Similarity 100.0%; Pred. No. 3.2e-217;
Matches 402; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 29 ATGAGAATGCTTCTGAATTTGAGTTTCTAGCTCTTGCGGCTGCTATGTTTCTGCTTT 88
DB 1 ATGAGAATGCTTCTGAATTTGAGTTTCTAGCTCTTGCGGCTGCTATGTTTCTGCTTT 60
QY 89 GCTGTAGAAAATCCCATGAAATAGACTGTGTGGCAGAGACTTTGACACTGCTTCCACTCAT 148
DB 61 GCTGTAGAAAATCCCATGAAATAGACTGTGTGGCAGAGACTTTGACACTGCTTCCACTCAT 120
QY 149 CGAATCTGGCTGATAGGCGCATGGAACTGATGATTTCTCTCTGAAAAATAAAAATCAC 208
DB 121 CGAATCTGGCTGATAGGCGCATGGAACTGATGATTTCTCTCTGAAAAATAAAAATCAC 180
QY 209 CAATCTGCATTAAGAAGTTTTCAGGGTATAGACATTTGAAGAACCAACTGCCAC 268
DB 181 CAATCTGCATTAAGAAGTTTTCAGGGTATAGACATTTGAAGAACCAACTGCCAC 240
QY 269 GGGAGGCTGTGATTAACATATTCGAAACTTGTCTTTAATAAAGAACCATAGAGCGC 328
DB 241 GGGAGGCTGTGATTAACATATTCGAAACTTGTCTTTAATAAAGAACCATAGAGCGC 300
QY 329 CAAAAAAGGTGTGAGAGAAAGATGAGATGACAAAGTTCTTGAAGTCACTGCGCA 388
DB 301 CAAAAAAGGTGTGAGAGAAAGATGAGATGACAAAGTTCTTGAAGTCACTGCGCA 360
QY 389 GTATTTCTTGTTGATATAAACCAGAGTGAGACCCGAAAGT 430
DB 361 GTATTTCTTGTTGATATAAACCAGAGTGAGACCCGAAAGT 402

RESULT 11
AR241539 402 bp DNA linear PAT 20-DEC-2002
LOCUS
DEFINITION Sequence 84 from patent US 6471957.
ACCESSION AR241539
VERSION AR241539.1 GI:27287248
KEYWORDS
SOURCE Unknown.
ORGANISM Unknown.

REFERENCE
AUTHORS Unclassified.
TITLE 1 (bases 1 to 402)
JOURNAL Sim.G., Yang.S., Dreitz,M.J. and Wonderling,R.S.
Canine IL-4 immunoregulatory proteins and uses thereof
Patent: US 6471957-A 84 29-OCT-2002;

FEATURES
source
Location/Qualifiers
1..402
/organism="unknown"
/mol_type="genomic DNA"

ORIGIN

Query Match
Best Local Similarity 100.0%; Pred. No. 3.2e-217;
Matches 402; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

29 ATGGAATGCTCTGGAATTTGAGTTGCTAGCTCTTGCGGCTGCTATGTTTCTGCTTT 88
|||
402 ATGGAATGCTCTGGAATTTGAGTTGCTAGCTCTTGCGGCTGCTATGTTTCTGCTTT 343
|||
89 GCTGTAGAAATCCCATGATAGACTGGTGCAGAGACCTTGACACGCTCTCCACTCAT 148
|||
342 GCTGTAGAAATCCCATGATAGACTGGTGCAGAGACCTTGACACGCTCTCCACTCAT 283
|||
149 CGAATTGCTGATAGGCGATGGAACTGTATGATCTTCTAATTAAGAAACATGAGCGC 208
|||
282 CGAATTGCTGATAGGCGATGGAACTGTATGATCTTCTAATTAAGAAACATGAGCGC 223
|||
209 CAATCTGTCATTAAGAAAGTTTTCAGGCTATAGACATTTGAAGAACCAATGCCAC 268
|||
222 CAATCTGTCATTAAGAAAGTTTTCAGGCTATAGACATTTGAAGAACCAATGCCAC 163
|||
269 GGGAGGCTGTGATTAACCTATTCCTAATTAAGAAACATGAGCGC 328
|||
162 GGGAGGCTGTGATTAACCTATTCCTAATTAAGAAACATGAGCGC 103
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329 CAAAAAAGGTGTGACAGAGAAATGAGAGTGAACAAGTTCTAGACTGCTGCA 388
|||
102 CAAAAAAGGTGTGACAGAGAAATGAGAGTGAACAAGTTCTAGACTGCTGCA 43
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389 GTATTTCTGTGATTAACCTGATGACCGGAGTGAACCGGAAAGT 430
|||
42 GTATTTCTGTGATTAACCTGATGACCGGAGTGAACCGGAAAGT 1

RESULT 12
AR254494 402 bp DNA linear PAT 20-DEC-2002
LOCUS AR254494
DEFINITION Sequence 83 from patent US 6482403.
ACCESSION AR254494
VERSION AR254494.1 GI:27303382
KEYWORDS
SOURCE Unknown.
ORGANISM Unknown.
REFERENCE 1 (bases 1 to 402)
AUTHORS Sim,G.-K., Yang,S., Dreitz,M.J. and Wonderling,R.S.
TITLE Caniney Il-13 immunoregulatory proteins and uses thereof
JOURNALS Patent: US 6482403-A 83 19-NOV-2002;
FEATURES
Location/Qualifiers
1..402
/organism="unknown"
/mol_type="genomic DNA"

ORIGIN

Query Match
Best Local Similarity 100.0%; Pred. No. 3.2e-217;
Matches 402; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

29 ATGGAATGCTCTGGAATTTGAGTTGCTAGCTCTTGCGGCTGCTATGTTTCTGCTTT 88
|||
1 ATGGAATGCTCTGGAATTTGAGTTGCTAGCTCTTGCGGCTGCTATGTTTCTGCTTT 60
|||
89 GCTGTAGAAATCCCATGATAGACTGGTGCAGAGACCTTGACACGCTCTCCACTCAT 148
|||
61 GCTGTAGAAATCCCATGATAGACTGGTGCAGAGACCTTGACACGCTCTCCACTCAT 120
|||
149 CGAATTGCTGATAGGCGATGGAACTGTATGATCTTCTAATTAAGAAACATGAGCGC 208
|||

Db 121 CGAATTGCTGATAGGCGATGGAACTGTATGATCTTCTAATTAAGAAACATGAGCGC 180
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Qy 209 CAATCTGTCATTAAGAAAGTTTTCAGGCTATAGACATTTGAAGAACCAATGCCAC 268
|||
Db 181 CAATCTGTCATTAAGAAAGTTTTCAGGCTATAGACATTTGAAGAACCAATGCCAC 240
|||
Qy 269 GGGAGGCTGTGATTAACCTATTCCTAATTAAGAAACATGAGCGC 328
|||
Db 241 GGGAGGCTGTGATTAACCTATTCCTAATTAAGAAACATGAGCGC 300
|||
Qy 329 CAAAAAAGGTGTGACAGAGAAATGAGAGTGAACAAGTTCTAGACTGCTGCA 388
|||
Db 301 CAAAAAAGGTGTGACAGAGAAATGAGAGTGAACAAGTTCTAGACTGCTGCA 360
|||
Qy 389 GTATTTCTGTGATTAACCTGATGACCGGAGTGAACCGGAAAGT 430
|||
Db 361 GTATTTCTGTGATTAACCTGATGACCGGAGTGAACCGGAAAGT 402
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RESULT 13
AR254495/c 402 bp DNA linear PAT 20-DEC-2002
LOCUS AR254495/c
DEFINITION Sequence 84 from patent US 6482403.
ACCESSION AR254495
VERSION AR254495.1 GI:27303383
KEYWORDS
SOURCE Unknown.
ORGANISM Unknown.
REFERENCE 1 (bases 1 to 402)
AUTHORS Sim,G.-K., Yang,S., Dreitz,M.J. and Wonderling,R.S.
TITLE Caniney Il-13 immunoregulatory proteins and uses thereof
JOURNALS Patent: US 6482403-A 84 19-NOV-2002;
FEATURES
Location/Qualifiers
1..402
/organism="unknown"
/mol_type="genomic DNA"

ORIGIN

Query Match
Best Local Similarity 100.0%; Pred. No. 3.2e-217;
Matches 402; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

29 ATGGAATGCTCTGGAATTTGAGTTGCTAGCTCTTGCGGCTGCTATGTTTCTGCTTT 88
|||
402 ATGGAATGCTCTGGAATTTGAGTTGCTAGCTCTTGCGGCTGCTATGTTTCTGCTTT 343
|||
89 GCTGTAGAAATCCCATGATAGACTGGTGCAGAGACCTTGACACGCTCTCCACTCAT 148
|||
342 GCTGTAGAAATCCCATGATAGACTGGTGCAGAGACCTTGACACGCTCTCCACTCAT 283
|||
149 CGAATTGCTGATAGGCGATGGAACTGTATGATCTTCTAATTAAGAAACATGAGCGC 208
|||
282 CGAATTGCTGATAGGCGATGGAACTGTATGATCTTCTAATTAAGAAACATGAGCGC 223
|||
209 CAATCTGTCATTAAGAAAGTTTTCAGGCTATAGACATTTGAAGAACCAATGCCAC 268
|||
Db 222 CAATCTGTCATTAAGAAAGTTTTCAGGCTATAGACATTTGAAGAACCAATGCCAC 163
|||
Qy 269 GGGAGGCTGTGATTAACCTATTCCTAATTAAGAAACATGAGCGC 328
|||
Db 162 GGGAGGCTGTGATTAACCTATTCCTAATTAAGAAACATGAGCGC 103
|||
Qy 329 CAAAAAAGGTGTGACAGAGAAATGAGAGTGAACAAGTTCTAGACTGCTGCA 388
|||
Db 102 CAAAAAAGGTGTGACAGAGAAATGAGAGTGAACAAGTTCTAGACTGCTGCA 43
|||
Qy 389 GTATTTCTGTGATTAACCTGATGACCGGAGTGAACCGGAAAGT 430
|||
Db 42 GTATTTCTGTGATTAACCTGATGACCGGAGTGAACCGGAAAGT 1

RESULT 14

AR300436 AR300436 405 bp DNA linear PAT 12-JUN-2003
 LOCUS
 DEFINITION Sequence 1 from patent US 6537781.
 ACCESSION AR300436
 VERSION AR300436.1 GI:11687875
 KEYWORDS
 SOURCE Unknown.
 ORGANISM Unknown.
 Unclassified.
 1 (bases 1 to 405)
 REFERENCE
 AUTHORS Guo, H., Lawton, R., Mermer, B. and Aiyappa, A.P.
 TITLE Methods and compositions concerning canine interleukin 5
 JOURNAL Patent: US 6537781-A 1 25-MAR-2003;
 FEATURES
 source
 1..405
 /organism="unknown"
 /mol_type="genomic DNA"

Query Match 64.4%; Score 393; DB 6; Length 405;
 Best Local Similarity 100.0%; Pred. No. 4,4e-212;
 Matches 393; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 29 ATGAGATGCTTGAATTTGAGTTGCTAGCTCTGGGCTGCTATGTTTCTGCTTT 88
 DB 1 ATGAGATGCTTGAATTTGAGTTGCTAGCTCTGGGCTGCTATGTTTCTGCTTT 60
 QY 89 GCTGTGAAAAATCCCATGATAGACTGGTGGCAGAGACCTTGACATGCTCTCCACTCAT 148
 DB 61 GCTGTGAAAAATCCCATGATAGACTGGTGGCAGAGACCTTGACATGCTCTCCACTCAT 120
 QY 149 CGAATTGGCTGATAGGCGATGGGAACCTGATGTTCTTACTCTGAAAAATAAATCAC 208
 DB 121 CGAATTGGCTGATAGGCGATGGGAACCTGATGTTCTTACTCTGAAAAATAAATCAC 180
 QY 209 CAATGTGCATTAAGAAGTTTTCAGGGTATAGACATTTGAAGAACCAACTGCCAC 268
 DB 181 CAATGTGCATTAAGAAGTTTTCAGGGTATAGACATTTGAAGAACCAACTGCCAC 240
 QY 269 GGGAGGCTGTGATTAACCTATTCCTTAAATAAAGAACATAGAGCGC 328
 DB 241 GGGAGGCTGTGATTAACCTATTCCTTAAATAAAGAACATAGAGCGC 300
 QY 329 CAAAAAAGAGTGTGAGAGAGAAAGATGAGAGTGAACAAAGTTCTTACTTACCTGCAA 388
 DB 301 CAAAAAAGAGTGTGAGAGAGAAAGATGAGAGTGAACAAAGTTCTTACTTACCTGCAA 360
 QY 389 GTATTCTTGCTGATTAATTAACCGAGTGA 421
 DB 361 GTATTCTTGCTGATTAATTAACCGAGTGA 393

RESULT 15

AM083939

LOCUS AX083939 405 bp DNA linear PAT 22-JUN-2001
 DEFINITION Sequence 1 from Patent WO0111049.
 ACCESSION AX083939
 VERSION AX083939.2 GI:14532940
 KEYWORDS
 SOURCE Canis familiaris (dog)
 ORGANISM Canis familiaris
 Eukaryota; Metazoa; Chordata; Craniala; Vertebrata; Euteleostomi;
 Mammalia; Euteria; Carnivora; Fissipedia; Canidae; Canis.

REFERENCE
 1 Guo, H., Lawton, R., Mermer, B. and Aiyappa, A.P.
 AUTHORS
 TITLE Methods and compositions concerning canine interleukin 5
 JOURNAL Patent: WO 011049-A 1 15-FEB-2001;
 IDEXX LABORATORIES, INC. (US)
 COMMENT On Jun 24, 2001 this sequence version replaced gi:13185501.
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 1..405
 /organism="Canis familiaris"
 /mol_type="unassigned DNA"

ORIGIN /db_xref="taxon:9615"

Query Match 64.4%; Score 393; DB 6; Length 405;
 Best Local Similarity 100.0%; Pred. No. 4,4e-212;
 Matches 393; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 29 ATGAGATGCTTGAATTTGAGTTGCTAGCTCTGGGCTGCTATGTTTCTGCTTT 88
 DB 1 ATGAGATGCTTGAATTTGAGTTGCTAGCTCTGGGCTGCTATGTTTCTGCTTT 60
 QY 89 GCTGTGAAAAATCCCATGATAGACTGGTGGCAGAGACCTTGACATGCTCTCCACTCAT 148
 DB 61 GCTGTGAAAAATCCCATGATAGACTGGTGGCAGAGACCTTGACATGCTCTCCACTCAT 120
 QY 149 CGAATTGGCTGATAGGCGATGGGAACCTGATGTTCTTACTCTGAAAAATAAATCAC 208
 DB 121 CGAATTGGCTGATAGGCGATGGGAACCTGATGTTCTTACTCTGAAAAATAAATCAC 180
 QY 209 CAATGTGCATTAAGAAGTTTTCAGGGTATAGACATTTGAAGAACCAACTGCCAC 268
 DB 181 CAATGTGCATTAAGAAGTTTTCAGGGTATAGACATTTGAAGAACCAACTGCCAC 240
 QY 269 GGGAGGCTGTGATTAACCTATTCCTTAAATAAAGAACATAGAGCGC 328
 DB 241 GGGAGGCTGTGATTAACCTATTCCTTAAATAAAGAACATAGAGCGC 300
 QY 329 CAAAAAAGAGTGTGAGAGAGAAAGATGAGAGTGAACAAAGTTCTTACTTACCTGCAA 388
 DB 301 CAAAAAAGAGTGTGAGAGAGAAAGATGAGAGTGAACAAAGTTCTTACTTACCTGCAA 360
 QY 389 GTATTCTTGCTGATTAATTAACCGAGTGA 421
 DB 361 GTATTCTTGCTGATTAATTAACCGAGTGA 393

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